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THE RELATIONSHIP BETWEEN INTERPERSONAL STYLE AND ATTITUDES TOWARD PHYSICAL ACTIVITY AMONG IRAQI FEMALES

by

© FAIZA M. SALMAN-YOUSIF

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES

AND RESEARCH IN PARTIAL FULFILLMENT OF THE

REQUIREMENT FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

DEPARTMENT OF PHYSICAL EDUCATION AND SPORT STUDIES

EDMONTON, ALBERTA

FALL, 1986

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ABSTRACT

The purpose of this study was to investigate the relationship between the interpersonal styles of Iraqi females and their attitudes toward physical activity.

Female students (N = 70) from the University of Baghdad were administered three different questionnaires: The Test of Attentional and Interpersonal Style (TAIS), Attitude Toward Physical Activity Inventory (ATPA), and the General Interest Questionnaire (GIQ).

Data included means, standard deviations, and percentages regarding the TAIS and ATPA. It was found that female students at the University of Baghdad have positive attitudes toward physical activity, but most of them do not participate in this activity due to different factors such as traditional, religious, and socio-economical.

The "Varimax" factor analysis was performed on the 40 GIQ items and revealed ten factors. Pearson product-moment correlation coefficients were calculated between the TAIS interpersonal subscales, the GIQ factors, and the ATPA scales. The coefficients ranged only from low to moderate but several statistically significant relationships did appear.

Log-linear models analysis was used to test how some factors (e.g., parents' education, family income, self-esteem, physical orientation, family encouragement) affect Iraqi female attitude toward physical activity.

These results were fully discussed in terms of their practical implication for females in Iraq.

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CHAPTER I

STATEMENT OF THE PROBLEM

Introduction

During this century the social status of Iraqi women, particularly as compared to Iraqi men, has undergone a transformation. From a low and somewhat precarious social position in the early years of the 20th century, Iraqi women have begun to improve gradually since the 1950s, though the social and cultural climate which essentially caused the change was prevalent in the 1920s and 1930s. The status of Iraqi women during the period prior to the 1958 revolution was inferior to that of men in all spheres of social and cultural life. Al-Hassani (1936) indicated that Iraqi society in general was characterized by economic and social backwardness; its political system was conservative and reactionary; and illiteracy, ignorance, and undesirable norms and values were predominant to the extent that society was stagnant and unable to attain any degree of progress in the diverse fields of social affairs, politics, and business life.

Al-Hassan (1973) pointed out that the Iraqi woman was treated with bias and a lack of dignity right from childhood until her old age, and her daily activities, tasks, and duties, even her mental creativity, were considered to be subservient to those performed by men. Bear (1964) denoted that the birth of a son was a cause for celebration but not for that of a daughter. Parents were used to treating their male children better than their female children, and hence allocated to the males more responsible duties than those allocated to the females.

In the traditional Iraqi family men were responsible for the occupational and professional duties which enabled the family to earn its living, such as farming, carpentry, teaching, practising medicine, etc. Whereas the women were allocated domestic work such as cooking, sewing, cleaning, looking after children and managing the internal affairs of the home (Al-Khamash, 1973). However, despite the allocation of domestic duties to women, Al-Khouly (1953) indicated that there were some women who practised various important professional tasks in the areas of farming, knitting and weaving, medicine and the law.

According to Al-Wardi (1965) the decision-making in the traditional Iraqi family was accepted as the responsibility of the head of the household who was normally the father or the eldest son and was never delegated to the women of the household.

The woman's rights in marriage were neither determined by them, nor were they given the chance to choose their marriage partners (Al-Hassan, 1977). The Iraqi girl at that time was expected to obey her parents regarding her marriage, and if her parents consented to her marriage to a certain man, she was expected to consent; otherwise, she was regarded as a deviant or a lawbreaker, with the possibility of a severe punishment.

The practice of polygamy in the traditional Iraqi society was another criterion which illustrated the inferior social position of women. Salim (1974), in referring to the disadvantages of polygamy, observed that it tended to cause much suffering and injustice to the three or four wives of a man as a result of his failure to reconcile the conflicting demands made by them and to meet their needs for support and care, not to mention those of the children.

Many and varied causes were responsible for the improvement of women's social status. Al-Sabic (1970) and Hussni (1958) referred to some of them as the dissemination of literacy and education among the masses, the growing cultural contact with the outside world due to the considerable improvement in mass media communication and in transportation, the advent and diffusion of industrialization, modernization and urbanization, and finally the relentless struggle of enlightened professional women to emancipate women from the social injustices, inequality, oppression, and tyranny to which they had been subjected over the previous centuries. Bebel (1976) went further by indicating that the social position of women in society, whether it is backward or improved, depends entirely on the socio-cultural and historical development and maturity of society. The implication here being that any development of the socio-cultural and historical characteristics of Iraqi society would improve the social position of women.

Iraqi women, like women of other industrialized countries during the era of their industrialization, quickly responded to the situation by making available their services to the country. The United Nations Educational, Scientific, and Cultural Organization (UNESCO) report (1975) indicated that the percentage of the female work force in Iraq has risen over the period 1950-1975. Al-Hassan (1980) attributed the quick response of women for employment outside the home to the diffusion of literacy among them, their desire to improve their social position, and their readiness to occupy a dual role as a housewife and employee or professional outside the home.

In 1958 the Iraqi's overthrew the monarchy and Iraq was proclaimed a republic. Since that time a new era has been created in the life of Iraqi women with changes in the economic, political, educational, and social

circumstances. These changes tended to enhance the social status of Iraqi women. For example, the first woman cabinet officer was appointed and more women entered both the university and the labour force. In the last 28 years various laws and decrees have lifted much of the injustices and oppression suffered by Iraqi women. In the period following these laws and decrees many women have adopted new styles of living and have entered the professions of medicine, law, education, engineering and more recently as officers in the army. In general, Iraqi women are now enjoying substantial gains in their standard of living. In addition, illiteracy eradication is compulsory for women as well as for men.

However, the Iraqi society is still controlled by men. Three major male viewpoints which relate directly to the current status of women can be identified. Firstly, there are the "traditionalists" whose outlook is conservative and who object to any type of change in tradition. Traditionalists believe that women are inferior and, therefore, must stay home and dedicate themselves to family affairs. The second type is those "moderate traditionalists" who would like to see some minor changes such as equal educational opportunities for wives and/or daughters, but as still working without much contact with me. Thirdly, there are the "modernists" who want to adopt a modern lifestyle and change many of the old traditions and who struggle to combat the one-sided principles and biased attitudes held by the majority of people toward women, particularly those principles and attitudes over the ages which have played a fundamental role in restricting a woman's social freedom, degrading her social position and restricting her psychological and moral standing in the society.

In addition, there is another major obstacle handicapping the Iraqi woman's complete emancipation. A sizable proportion of Iraqi women, particularly those from a working class background, react indifferently to this "movement" and seem to be disinterested in the gains already achieved from them (Al-Hassan, 1980). These women still behave as if their capabilities and talents are below those of men, and they feel their social position and prestige are still inferior to those of men.

The practice of some sport and physical activities in the school system by Iraqi females in the 1930s and 1940s was the first introduction of these activities in the lives of Iraqi women. In addition, the Iraqi female enrollment at Baghdad University during the 1950s and their participation in sports teams paved the way to encouraging other female students to take part in sport and physical activity, especially after the telecasting of the track and field championships of Baghdad University in 1961. This change in attitudes and their participation in sport and physical activity, however, have been affected by problems such as having to play in front of male students. Other factors affecting participation include the family's attitude toward sport and physical activity, parents' education and socio-economic background, traditions, religion, and the woman's past experiences from early childhood and school. This study was an attempt to explore some of these problems and to assess their impact on the sport participation and attitude toward physical activity of Iraqi females.

Purpose of the Study

The purpose of this study was to explore the relationship between the interpersonal style of Iraqi females and their current attitudes toward participation in sport and physical activity. It was the researcher's contention that an individual's attitudes are anchored by the way they relate to and interact with other people, particularly if these other people are also involved in the sport.

Specific Purposes of the Study

This study was intended to explain:

1. The current attitudes of Iraqi females toward physical activity.
2. How an Iraqi female interacts with or relates to other people, in particular her teammates, coaches, and parents.
3. How she responds both physically and mentally to the increasing pressure of participating on a sport team.
4. The extent of an Iraqi females desire to participate in sport and physical activity.
5. How an Iraqi female's attitude toward physical activity and participation in sport can be affected by her family income and her parents' education.
6. How an Iraqi female's self-esteem can be influenced by her parents' education and her family's encouragement of physical activity.
7. How sibling participation in physical activity influences an Iraqi female's self-esteem and her participation in physical activity.
8. How family encouragement for its female children to participate in physical activity in childhood can affect participation of these females in physical activity in high school and university.

Hypotheses

The following hypotheses were tested:

1. That significant relationships exist between an Iraqi female's attitude toward physical activity and her interpersonal style.
2. That the majority of female students at the University of Baghdad have positive attitudes towards physical activity; however, most of them do not participate in physical activity for different reasons, such as family discouragement, traditions, religion, afraid to play in front of males.
3. That both family income and parents' education significantly affect an Iraqi female's attitudes towards physical activity and also her participation.
4. That family encouragement in participation in physical activity is more significant than parents' education in affecting an Iraqi female's self-esteem.
5. That sibling participation in physical activity influences an athlete's self-esteem and, subsequently, her participation in physical activity.
6. That family encouragement of participation in physical activity to female children will increase their participation in this activity in high school and university.

Need for the Study

Attitudes toward physical activity are a focus of the Iraqi Women's Federation today. As physical activity and sport are taking a place in the Iraqi Women Federation, Iraqi women tend to change their attitudes towards participation in these activities day by day. These changes in attitudes and interest in physical activity reflect the

changes in the society toward women themselves. Nevertheless, the Iraqi female seldom changes her attitude toward physical activity easily, and may resist this change in several different ways. She may draw on other beliefs to refute the message that comes from her classmates or physical educators regarding physical activity; or she may downgrade the source of the message or sometimes distort the message and perceive it as being less than it really is.

Morris (1973) indicated that an attitude toward physical activity has three major components:

1. Beliefs include facts, opinion, and the general knowledge someone has about an activity.
2. Feelings about physical activity which includes hate, like, and dislike.
3. A tendency to behave in certain ways toward physical activity which implies the likelihood of certain actions toward this activity.

To deal effectively with the above mentioned components of attitudes one could observe the interpersonal characteristics of a female in order to trace her positive or negative attitude toward physical activity and why or why not she wants to participate in this activity. This issue has not been studied in Iraq, though it is clear that it has important implications for the future of Iraqi women and their place in the Iraqi society.

An understanding of the social and psychological significance of sport and physical activity necessitates paying careful attention to concepts and constructs employed by workers in the several behavioral disciplines. Among the more promising social psychological units of analysis is that of attitude. Martens (1975) stated that attitudes serve an important function in helping us adjust to our complex environment,

to protect our ego or self-esteem by allowing us to avoid unpleasant truths about ourselves, to express our values, and to help us understand our world. Therefore, it is felt that studies using various concepts could be helpful in studying attitudes toward physical activity on a wider basis by adding more knowledge to this area in general and new specific information regarding the women's movement in Iraq.

In addition, this study attempted to clarify aspects of the relationship between a physically active Iraqi female and her feelings toward Iraqi society, her family and her university.. This may help in:

1. Identifying the problems which influence the Iraqi female in her participation in physical activity during her university program. Therefore, university physical educators can devise better programs to encourage other females to participate freely in physical activities.
2. Investigating the motives underlying the positive or negative attitudes toward physical activity held by Iraqi females. This may provide suggestions to improve the interest of the Iraqi female in physical activity.
3. Encouraging the executive board of the Iraqi Women's Federation to organize nationwide programs to promote the participation of Iraqi women in physical activity and to explain the important role of this participation in building a new Iraqi society.

Delimitations

1. The population of this study consisted of those female students enrolled in the academic year 1983-84 at Baghdad University, in Iraq.
2. The sample was limited to 70 subjects who were randomly selected.

3. The study was limited to the interpersonal style of Iraqi female university students and their attitudes toward physical activity.
4. The study data was limited to the information gained from three instruments, namely: the Test of Attentional and Interpersonal Style, the Attitude Toward Physical Inventory and a General Interest Questionnaire.

Limitations

The following factors may have had a limiting affect on the outcome of this study:

1. All responses were accepted as given. As in any study involving the use of questionnaires, the results were relevant only if all questions were answered sincerely and honestly.
2. The use of North American test instruments on a non-North American culture were administered.
3. This study was limited to the reliability and validity of the instruments used.

Definitions

To facilitate common understanding of terms used in this study, the following definitions are made:

Attitude: A latent, relatively stable variable reflecting both intensity and direction of feeling toward a particular object, whether it be concrete or abstract (Kenyon, 1968b).

Physical Activity: Organized gross human movement as manifested in active games, calisthenics, sports, and dance (Kenyon, 1968a).

Physical Activity as a Social Experience: Those physical activities whose primary purposes are to provide a medium for social intercourse; that is, to meet new people and to perpetrate existing relationships (Kenyon, 1968a).

Physical Activity for Health and Fitness: Those physical activities which are characterized primarily by their contribution to the improvement of one's health and fitness (Kenyon, 1968a).

Physical Activity as the Pursuit of Vertigo: Those physical experiences which provide, at some risk to the participant, an element of thrill through the medium of speed, acceleration, sudden change of direction, or exposure to dangerous situations, with the participant usually remaining in control (Kenyon, 1968a).

Physical Activity as an Aesthetic Experience: Those physical activities which are often perceived as having an aesthetic value for the individual; that is, activities that are conceived of as possessing beauty or certain artistic qualities (Kenyon, 1968a).

Physical Activity as Catharsis: Those activities which provide a release of tension precipitated by frustration through some vicarious means (Kenyon, 1968a).

Physical Activity as an Ascetic Experience: Those physical activities that are conceived of as requiring long, strenuous and often gratifications (Kenyon, 1968a).

Interest: A relatively persistent aspect of one's lifestyle, usually providing a degree of pleasure or satisfaction. For this study, interest in physical activity will be reflected through participation in, and association with, sport and physical activity (Semotiuk, 1967).

Interpersonal Style: The individual's characteristic way of interacting with or relating to other people (Nideffer, 1981).

CHAPTER II

REVIEW OF RELATED LITERATURE

The purpose of this section is threefold:

1. To provide a brief overview of the current state of the literature in the two areas of attitude toward physical activity and interpersonal style.
2. To briefly justify the usefulness of these two constructs for investigations into the psychological structure of Iraqi females.
3. To provide a valid relationship for looking at these two constructs in relation to each other.

Attitude Toward Physical Activity Literature

Attitudes are acquired through our association with family, peer groups and other groups, especially reference groups. Some are formally taught as part of the educational process and others are learned informally by identification and modeling.

Many researchers and scholars have attempted to define the concept of attitude, but Allport (1935) in the handbook of social psychology mentioned one of the most representative statements of the meaning of this concept:

> An attitude is a mental and neural state of readiness organized through experience, exerting a directive or dynamic influence upon the individual's response to all situations with which it is related (Allport, 1935).

Allport in the same handbook postulates a great similarity between traits and attitudes. Traits are suggested as not being linked to one object or a specific class of objects; whereas, attitudes are linked to

a specific object or class of objects and are less general than traits.

Virtually all theorists agree that an attitude is not a basic, irreducible element within the personality, but represents a cluster or syndrome of two or more interrelated elements. Lewis (1938) emphasized this view when she defined an attitude as "an interrelated set of opinions organized around a point of reference". Sapora and Mitchell (1961) in their attempt at defining attitude, linked attitude to the dispositional concept of motives. Attitudes, they maintain, are related to ideas and thinking, and more conscious, emotional and constitute motives.

For Triadis (1971) the definition of attitude consisted of three components: (1) cognitive, (2) affective, and (3) behavioral. The cognitive component refers to a certain general category, belief or idea, which is part of the human thinking process: Physical activity can be such a category. The affective component denotes emotions or feelings expressed toward the category with direction varying from positive to negative. The behavioral component refers to a predisposition toward action, such as participating in a physical activity.

Despite a lack of agreement concerning the conceptual and operational definitions of attitude, most researchers agree that attitude is "a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object" (Fishbein and Ajzen, 1975).

Attitude Theory and Measurement

Attitude theories have generally been more interested in the theory and measurement of attitudes toward objects, across situations, than in the theory and measurement of attitudes-toward-situations,

across objects. Scales exist that measure attitudes toward physical activity, sport and physical education, but no scales exist to measure attitudes toward such situations as practising physical activity or sport in a club or school; being a coach or player in a team sport group. As a result, the study of attitudes-toward-situations has become more or less independent from the study of attitudes-toward-objects. RoKeach (1969) referred to the splitting-off of attitudes-towards-situations research from attitude-toward-object investigations as having severely retarded the growth of attitude theory. This researcher added that for one thing, it has resulted in a failure to appreciate that an attitude subject is always encountered within some situation, about which have an organized attitude. It has resulted in unsophisticated attempts to predict behavior accurately on the basis of a single attitude-toward-object, ignoring the equally relevant attitude-toward-situation. It has resulted in unjustified interpretations and conclusions to the effect that there is often an inconsistency between attitudes and behavior, or a lack of dependence of behavior on attitudes.

A behavior theory approach to the relations between beliefs about an object and the attitude toward the object was initiated by Fishbein (1967). Fishbein suggested that at least two things should be considered when people's attitudes are examined: 1) belief strength indicating the subjective likelihood that an object has certain attributes and 2) general evaluation of these attributions. In other words, an individual's attitude toward any object is a function of belief (belief strength) about the object's attributes and a personal evaluation of these attributes. Fishbein's most obvious implications of his theory concern the question of attitude change. According to the theory, attitude change will occur when: 1) an individual's beliefs

about an object change and/or (2) when the evaluative aspect of beliefs about an idea change. According to Fishbein the beliefs about an object may change in two ways: (1) new beliefs may be learned, that is, new concepts may be related to the attitude object, new stimulus response associations may be learned, and (2) the strength of already held beliefs may change, that is, the position of beliefs in the habit-family hierarchy may be altered through positive or negative reinforcement.

Cognitive structure and attitudinal affect was the primary concern of Rosenberg (1967). His general theoretical view underlying the following points were: (1) when a person has a relatively stable tendency to respond to a given object with either positive or negative affect, such tendnecy is accompanied by a cognitive structure made up of beliefs about the potentialities of that object for attaining or blocking the realization of valued state, and (2) the sign (positive or negative) and extremity of the affect felt toward the object are correlated with the content of its associated cognitive structure. This means strong and stable positive affect toward a given object should be associated with beliefs to the affect that the attitude object tends to facilitate the attainment of a number of important values. While strong negative affect should be associated with beliefs to the effect that the attitude object tends to block the attainment of important values.

Iso-Ahola (1980), in citing the theory of cognitive consistency, mentioned that Festinger (1957) proposed that when a person has two oppositive cognitions, dissonance exists. Since dissonance is unpleasant, a person is motivated to reduce it, and this tendency is greater the more the perceived dissonance is felt. If the inconsistent cognitions are important, more dissonance is experienced than if these cognitions are unimportant. More dissonance is also aroused as the proportion of

dissonant cognitions increases. The level of dissonance can be estimated by the following formula (Sherwood, Barron and Fitch, 1969):

$$\text{Dissonance} = \frac{\text{Importance x number of dissonant cognitions}}{\text{Importance x number of consonant cognitions}}$$

Iso-Ahola (1980) added that it follows from the above that in theory dissonance can be decreased by reducing the importance of the dissonant cognitions, by reducing the proportion of dissonant cognitions in relation to the total number of cognitions in a situation, by adding consonant cognitions and by changing dissonant cognitions into consonant ones. Iso-Ahola illustrated this by an example. A person may have two inconsistent cognitions: 1) "I dislike the recreation program of our city" and 2) "I play basketball regularly in a league organized by the city's recreation center". Assuming that these two incongruent elements are important cognitions, the person is in a state of dissonance. To eliminate it by changing one of the dissonant cognitions, the person can either stop playing basketball or start liking the recreation program. If the person is fond of basketball, he or she is unlikely to drop that activity from the preferred leisure repertoire. Consequently, they end up changing their attitude toward the recreation program from unfavorable to favorable.

As Kenyon (1968a) referred to physical activity as "organized (structure), non-utilitarian (in an occupational or maintenance sense), gross human movement, usually manifested in active games, sports, calisthenics, and dance", he reduced its domain to several independent or quasi-independent sub-domains. These sub-domains were as follows:

1. Physical activity as a social experience.
2. Physical activity for health and fitness.
3. Physical activity as the pursuit of vertigo.

4. Physical activity as an aesthetic experience.
5. Physical activity as catharsis.
6. Physical activity as an ascetic experience.

Over the last fifty years a number of studies have addressed the topic of attitudes toward physical activity. Although a variety of techniques have been employed, Kenyon (1968b) stated they have suffered from a number of shortcomings. First, sufficient attention has not been paid to the characterization of "physical activity" in its broadest sense. Efforts to that date had usually limited the inquiry to a somewhat restricted domain such as "physical education", "team game competition", or "sports". Second, instruments seldom were based upon a thorough application of appropriate test construction procedures so long a part of the measurement literature, such as item analysis and psychological scaling techniques. When such methods were used, too often data were acquired from relatively small samples. Third, where scaling procedures were employed, such as in the development of instruments by Wear (1955), Richardson (1960), Adams (1963), and Mason and Ventre (1965), there was a failure to account for the possible and indeed likely multi-dimensionality of the domain in question.

The Attitude Toward Physical Activity (ATPA) Inventory

Kenyon (1968b), in searching for a conceptual framework for characterizing values held for physical activity, found no single psychological and sociological theory emerged as an appropriate model. Based upon a multi-dimensional model for characterizing physical activity partly upon theory and partly based upon reasons for involvement in physical activity, Kenyon developed an attitude inventory* which

* Kenyon Attitude Inventory items are available in Appendix A.

its items held to be representative of the six subdimensions of his model of physical activity (see pages 16-17). These items were evaluated on the basis of factor and item analysis using data generated by the use of preliminary forms. Hoyt reliabilities ranged from .72 to .89 for the six scales. Scales of this inventory were able to differentiate between appropriate high and low preference groups for a particular type of activity in all cases except physical activity perceived as "catharsis".

Studies Using the ATPA

Collins (1967) conducted a study of attitudes held toward physical activity by secondary school students in Western Australia. All subjects indicated a favorable attitude toward physical activity as a social experience, as catharsis, as the pursuit of vertigo and for health and fitness. He also found a significant difference in attitudes held by students from high academic backgrounds and those held by students from low economic backgrounds.

In a similar study Semotiuk (1967) conducted a study of the attitude towards physical activity as held by a sample of 995 grade ten and twelve Canadian secondary school students from Edmonton, Alberta. Semotiuk concluded: (1) attitude towards physical activity was influenced by effect of communication media, although the exposure to sport was limited, (2) attitude toward physical activity was generally favorable, (3) students express a desire to participate in a greater variety of physical activities, (4) participation in different types of physical activity is influenced by best friends, and (5) boys show more interest in physical activity than girls. This was clearly shown by television viewing, newspaper reading, and attendance at spectator sports.

Kenyon (1968c) employed the results obtained from studies which had utilized his attitude inventory, notably those of Semotiuk (Canada) (1967), Collins (Australia) (1967), Oliver, McCarthy and Keogh (England) (1968), and his own research (United States) (1968b) and found that: 1) attitude toward physical activity is a function of the perceived instrumentality and value associated with the activity in question; 2) positive attitudes in secondary school children toward physical activity centered on those activities characterized as a social experience, as health and fitness, as an aesthetic experience and as catharsis; 3) attitude was found to be a function of sex in that females were found to possess a more positive attitude toward physical activity characterized as a social experience, as health and fitness, and as an aesthetic experience, while males were found to possess more positive attitudes than females toward physical activity perceived as the pursuit of vertigo, and as an ascetic experience; 4) older children are more disposed toward physical activity as an ascetic experience and as catharsis than are younger children; and 5) the nature and degree of primary and secondary involvement were found to be a function of a complex set of behavioral, dispositional, and situational factors.

Alderman (1969) made a socio-psychological assessment of attitude toward physical activity in champion athletes representing Canada in the Pan American Games in Mexico in 1967. He reported some differences and similarities with the Kenyon study (1968c). The females in both studies ranked the subdomains almost identically; whereas the male student group ranked physical activity as a social experience first and physical activity as an aesthetic experience fourth, almost opposite to the male athletes in Alderman's study. A generally high attitude strength in all sub-domains was reported by the women's volleyball team.

A study was conducted by Corbin (1976) to assess the attitudes toward physical activity of champion athletes and non-athlete college women. The Kenyon Attitude Inventory was administered to 75 athletes participating in the National AIAW Basketball Championships and 212 college freshmen women randomly selected from required physical education classes at Kansas State University. Results of statistical analysis indicated that women basketball players had significantly higher attitude scores on the ascetic attitude subscale than on any of the other five subscales. Athletes scored higher on the catharsis and ascetic subscales than did the non-athletes while the non-athletes had significantly higher scores on the aesthetic subscale than did the athletes.

To determine the differences in attitude toward physical activity after participation in required service programs in physical education at the college level, Zaichkowsky (1975) carried out pre- and post-test measurement on 3 attitudinal components by using Kenyon's Attitude Toward Physical Activity Inventory on male and female students from two universities in Ohio. Zaichkowsky used a cognitive 15-question objective test in addition to Kenyon's inventory. Her 2 x 2 multivariate ANOVA indicated statistically significant differences($p < .05$) level on the main effects of sex and type of program as well as significant interaction. Further evaluation using discriminant analysis indicated that there were 2 statistically significant discriminant functions - one function demonstrated distinct attitudinal differences between men and women regardless of the type of program in which they were enrolled, while the second function revealed that women in the foundations program were different from the males in the same program and males and females in the lifetime program.

Jensen (1971) investigated the interests in and attitudes toward physical activity as well as the game preference of French and English secondary school students in Canada. In addition to Kenyon's inventory, all subjects responded to a general information inventory and a game preference inventory. Both groups expressed favorable attitudes toward physical activity as a social experience, aesthetic experience, as a means for catharsis and for health and fitness. A slightly positive attitude was expressed toward physical activity as the pursuit of vertigo and as an ascetic experience. French and English females in the study had an extremely favorable attitude toward physical activity as an aesthetic experience even though less than 45% of them indicated they participated in physical activities of this nature at least once per week.

Asquith (1971) studied the attitudes toward physical activity of certain selected groups of first year students at the University of Alberta. Only minor differences were found between groups. He suggested that regardless of faculty, students have similar attitudes toward physical activity. Except for statistically significant differences between the Bachelor of Physical Education male and female groups in the sub-domains of catharsis and social experience, no real or definitive differences were found on the basis of sex. In addition, subjects in each of the four groups (i.e., 30 males and 30 females from each faculty) failed to significantly differ in their attitudes toward each of the six sub-domains, thus indicating that physical activity is characterized by all of the six sub-domains rather than by any single one. No preference emerged from the data collected in this study.

Other Studies on Attitude Toward Physical Activity and Sport

Attitude of college women toward physical activity as a means of recreation has been studied by Moore (1941). This study showed that United States college women had: 1) positive attitudes toward physical activity, 2) been interested and participated more in individual sport than team sports, and 3) participated more in physical activity in the secondary school than in college, but this participation is felt to have resulted from more time, better organization and more close friends rather than a stronger desire to seek physical activity at that time.

Forty-one years later a similar study by Salman (1982) was conducted to evaulate the attitude of college females toward physical activity as a means of recreation. This researcher found that a favorable general attitude toward physical activity was held by university female students while the average amount of time spent in participation in this type of activity was low. These females revealed that they had participated more in physical activity in the secondary school system than at the university level. Ninety-five percent of these females did not think that participation in sport and physical activities made women more masculine.

Other studies of college women's attitudes toward physical activity in the United States reveal that on the whole, they believe in the value of physical activity in their lives, even though many indicated they were disinclined to participate (Bell, 1963; Broer, 1955a and 1955b; Keogh, 1962 and 1963). This was thought to be due to a lack of experience or skill development in physical education or from negative responses from peers (Baker, 1940; Broer, 1955; Keogh, 1963). Wessel (1964) suggested that "of all the characteristics which contribute to physical ability none seem to be as important to performance in sports

or other physical activities as body strength". However, many people do not consider strength or the demonstration of strength to be feminine.

Arabic Cross-Cultural Studies on Physical Activity

The attitudes of high school students toward sport and environmental factors that affect them were investigated by Owais, Rifat and Mahmood (1983). These researchers administered a 50-question questionnaire to 486 students who were randomly selected from high schools in Cairo, Egypt. The majority of the subjects rated physical education as their favorite course followed by religion, Arabic language, social studies, science, mathematics, English language, and finally, fine arts. With regard to watching and reading about sports activities, the majority of students selected watching sports programs on television as their first preference, followed by reading sports news in newspapers, listening to radio sports programs, and finally watching actual sport events. The authors felt that Egyptian television played an important role in directing the attitudes of these young people toward sport by providing commentaries and analyses of not only the sporting events but also the athletes' performances. The reasons behind the decrease in spectator attendance was attributed to television coverage of the events.

Female sports teams at the University of Baghdad have many problems which hinder the training sessions and athletic performance of the team members. Al-Mufti (1984) investigated the negative factors that affected training of female basketball teams at Baghdad University. The author surveyed 50 players and 17 coaches. It was found that both players and coaches had high positive attitudes toward basketball and they were eager to practise; however, many obstacles detered them from keeping up

with the continuation of their training program. Some of these obstacles were: lack of basketball courts and equipment, uncomfortable relationship between some coaches and their players, coaches; commitment other than coaching, lack of cooperation between the college administration and coaches, difficulties in finding an appropriate training time for all players because of their different academic programs and timetables, and finally, players had other commitments which affected their sessions attendance.

Another study was conducted by Hadith, Al-Khalil and Bilal (1984) which investigated the effect of participation in sport activity on the reduction of behavioral problems that faced students at Mousel University in Iraq. A sample of 200 students was investigated. One hundred of these students were participants in sport activities and the other 100 students were non-participants. Many differences were found between the two groups. The participant group thought that participation in sport activities improved their health and physical ability as well as improved their control over their psychological and interpersonal situations. The authors recommended that physical education courses be added to the academic program and to try to increase the students' sports awareness by reading about sport in newspapers.

Sadik (1984) indicated that Iraqi schools lack good quality physical education courses and programs and there is an absence of coordination between the departments of Physical Education and the Ministry of Education and sport clubs and youth centers. Additionally, the sport facilities and equipment in Iraqi schools were viewed as inadequate for creating successful physical education classes. Sadek stated that the establishment of sports schools was important for Iraq in order to improve the Iraqi sports movement.

Interpersonal Style Literature

The Test of Attentional and Interpersonal Style (TAIS)

The Test of Attentional and Interpersonal Style, developed by R.M. Nideffer (1976), was an attempt to provide accurate and objective information about a person's ability to control those attentional and interpersonal factors most related to performance in a variety of situations. The test was developed in such a way as to counteract the usual criticisms of similar assessment procedures in that they tend to (a) have little predictive utility, (b) they fail to lead to the selection of particular treatment procedures, (c) they do not take into account situational variables, and (d) they are not based on a sound theoretical or conceptual base.

The focus of this study was to use the nine interpersonal scales to derive information on the interpersonal style of the Iraqi women. Interpersonal style is generally defined by Nideffer (1976) as being the customary or characteristic way a person reacts to and relates with other people. That is, the style and intensity of a person's interpersonal and environmental relationships.

Nideffer's nine interpersonal variables on the TAIS are: 1) need for control (CON), 2) self-esteem (SES), 3) physical orientation (P/O), 4) obsessiveness (OBS), 5) extroversion (EXT), 6) introversion (INT), 7) intellectual expression (IEX), 8) negative affective expression (NAE), and 9) positive affective expression (PAE). These variables are common personality characteristics or needs, and all people have them to one degree or another as they come into play in almost any interpersonal situation. However, these personality variables will help determine: 1) which situations will be stressful for an Iraqi female, and 2) how she is likely to respond, both physically and mentally to increasing pressure.

TAIS Reliability and Validity

Wolf and Nideffer (1974) reported two-week test-retest reliability coefficients for the TAIS which ranged from .60 to .93, with a median of .83. While Nideffer and Pratt (1982) reported that subsequent studies have obtained similar results and the median test-retest correlation for a one year period was .76.

The TAIS construct validity has been examined by correlating TAIS scale scores with the same individual's scores on other psychological instruments (Nideffer and Wiens, 1975; McPherson and Nideffer, 1975; and Wolf and Nideffer, 1974). Nideffer (1976) stated that there is some content similarity between several of the TAIS interpersonal scales, the MMPIK and SI scales, the Rotter Locus of Control I-E scale, and the Maudsley Personality Inventory (MPI) neuroticism and extroversion scales. In addition, each test listed above overlaps on several TAIS scales because items cover a much broader range of behaviors. For example, on several TAIS scales because items cover a much broader range of behaviors, construct validity has been found for the following interpersonal scales: need for control (CON), self-esteem (SES), extroversion (EXT), intellectual expressiveness (IEX), and the expression of both positive and negative affect.

Studies Using the TAIS

The Test of Attentional and Interpersonal Style (TAIS) was used by different researchers and psychologists in a variety of fields to measure different interpersonal variables. While many of these studies focused on male subjects, only studies which utilized the TAIS with females are to be mentioned in this part of the literature.

An examination of response differences on the TAIS subscales was

examined by comparing the scores of 74 male and 123 female introductory psychology students. In regard to the interpersonal subscales, Nideffer (1974) found significant differences between the two groups. Males described themselves as a) more physically oriented, b) more intellectually expressive, and c) less expressive of positive affect.

Twenty-eight female undergraduates enrolled in a vocational counseling course were requested to participate in a research project. The subjects were administered the TAIS and their scores on the instrument were then correlated with the instructor's ratings of the students' performance at the end of the class. McPherson and Nideffer (1974) found that these females had high levels of self-esteem, were extroverted, and often associated with characteristic anxiety. Subjects were described by the instructor as: 1) failing to contribute to class discussions and 2) being unable to deal with more than one topic at a time.

The TAIS has been translated into several languages including French, German, Russian, Spanish and Arabic. The Arabic version of the TAIS was used by Yousif and Yousif (1984) to investigate the attentional and interpersonal style of female volleyball players at the University of Baghdad (N = 23). With regard to the interpersonal style of these female players, the authors concluded the following:

1. They lack self-confidence and get stressed by situations requiring them to make decisions.
2. They are relatively tense and high in obsessiveness (i.e., worrying).
3. They are more introverted than extroverted.
4. They have a tendency to become overly critical as pressure increases.

Relationship Between Attitude and Interpersonal Variables

Some interpersonal variables have been found to be associated with attitude change. McGuire (1969) proposed that there is an inverted U-shaped relationship between self-esteem as an interpersonal variable and attitudinal change. In other words, persons with moderate self-esteem are more receptive to persuasive communications and thus attitude change; whereas, persons with either a very low or high self-esteem are the least impressionable.

As well, social comparison theory suggested that when one evaluates his own actions one looks for a person to compare them with. People do the same thing to assess the validity and appropriateness of their attitudes. A female who comes from a small town with no female participation in sport or physical activity may have learned a negative attitude toward sport and physical activity. But if she then enters college in a large, urban university where many female students practice sports and physical activity, her stereotyped attitude may undergo alterations in many ways. Direct experience with female athletes may show her that her beliefs are incorrect - she may find the females she wants to emulate and model are female athletes or females who practice sport and physical activity. Under these circumstances, her attitude is likely to change. While no study regarding sport and physical activity has studied this phenomenon, Newcomb (1943) published the results of a study conducted at Bennington College, a small women's college in Vermont. The results illustrated how important reference groups can be in the development of attitudes. The Bennington students, largely from upper class, conservative families, generally arrived at the start of their freshman year with conservative values.

By the time they graduated, however, their attitudes had been greatly liberalized. The liberal staff members on the faculty had become their new authority figures, and the stimulating environment of new ideas, new opinions, and new beliefs caused a period of emotional and intellectual ferment. In this environment Newcomb discovered that the more conservative girls tended to be socially isolated.

Summary

From the foregoing review several important and relevent aspects of the literature should be evident:

1. Attitudes exist in some form within the individual, either as patterns of physiological sensitivity (e.g., a mental and neural state of readiness) or as persistent organizations of thoughts and feelings, ready to be expressed when the appropriate occasion arises. Kenyon (1968b) developed an inventory to measure attitude toward physical activity. Many studies such as Collins (1967), Semotiuk (1967), Oliver, McCarthy and Keogh (1968) and Kenyon (1968b) found that: 1) attitude was a function of sex in that females were to possess a more positive attitude toward physical activity characterized as a social experience, as health and fitness, and as an aesthetic experience; while males were found to possess more positive attitudes than females toward physical activity perceived as the pursuit of vertigo and as an aesthetic experience; 2) the nature and degree of primary and secondary involvement were found to be a function of a complex set of behavioral, dispositional, and situational factors; and 3) attitude toward physical activity is a function of the perceived instrumentality and value associated with the activity.

2. Interpersonal behavior is a source of information telling how and why people get into trouble. Interpersonal style, according to Nideffer (1981), is most often impacted upon the observation of others. For example, is a person aggressive and controlling, or shy and withdrawn? These interpersonal styles may or may not be related to effective performance. As stress is created, however, by the interaction of conflicting interpersonal styles, performance problems and physical and emotional impairment will develop. While McPherson and Nideffer (1974) found U.S. female university students to have high self-esteem and to be extroverted, Yousif and Yousif (1984) found Iraqi female students lacking in self-confidence, worry, are introverted, and have a tendency to become overly critical as pressure increases.
3. Attitude change and one of the interpersonal variables, namely self-esteem, form a U-shape relationship (McGuire, 1969), indicating that persons with moderate self-esteem are more receptive to persuasive communications and thus attitude change; whereas, persons with either a very low or high self-esteem are the least impressionable.

CHAPTER III

METHOD AND PROCEDURES

The Sample

The study sample was comprised of 70 female students who were enrolled in the academic year 1983-84 at the University of Baghdad in Iraq. The mean age for the total sample was 20.3 years. All subjects were randomly selected through the general name list of their faculties.

The Instruments

The instruments used in this study were as follows:

1. Attitude Toward Physical Activity Inventory (ATPA)

   This is an inventory which measures the meaning certain concepts of physical activity have for a person by judging them against a series of descriptive scales. The inventory items* are held to be representative of six dimensions of physical activity. These dimensions are as follows:

   1. Physical activity as a social experience
   2. Physical activity for health and fitness
   3. Physical activity for pursuit of vertigo
   4. Physical activity as an aesthetic experience
   5. Physical activity for the release of tension
   6. Physical activity as an ascetic experience

2. Test of Attentional and Interpersonal Style (TAIS)

   The Test of Attentional and Interpersonal Style (TAIS) consists of 144 items grouped into 17 subscales which have been separated into three major areas. The first six scales are associated with

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* ATPA items and instructions are available in Appendix A.

attentional weaknesses and strengths of an individual. Subscales seven and eight deal with the individual's information processing capacity and behaviour control. The third group of subscales* (9-17) provides information about different aspects of interpersonal behaviour.

The TAIS interpersonal subscales are as follows:

1. need for control (CON)
2. self-esteem (SES)
3. physical orientation (P/O)
4. obsessiveness (OBS)
5. extroversion (EXT)
6. introversion (INT)
7. intellectual expressiveness (IEX)
8. negative affect expression (NAE)
9. positive affect expression (PAE)

3. General Interest Questionnaire (GIQ)

The General Interest Questionnaire (GIQ)** is designed by the author of this study in order to determine an Iraqi female's opinion of and interest in sport and physical activity as well as to gain knowledge of her family status and socio-economic background.

This questionnaire consists of 40 items regarding one's opinion and interest in sport and physical activity and 13 questions regarding information about the female's family socio-economic background and her parents' education. The questionnaire was designed to help in the investigation of the background of Iraqi

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* TAIS interpersonal subscales and items available in Appendix B.

** GIQ items and instructions are available in Appendix C.

female participation in sport and physical activity and their sport preference. In addition, the data was used to explore the question of the relationship that exists between an Iraqi female's attitudes and participation in physical activity and her family and socio-economic background.

Procedures

1. The three instruments were translated into Arabic language.
2. They were mailed to the Department of Sport Activities at the University of Baghdad and were administered to the randomly selected subjects. Clear instructions to the person who administered the three questionnaires were given over the telephone, and she was contacted to ascertain that all test conditions could be met. For the test battery to be completed to the best advantage, it was important to conduct the test in a quiet and relatively comfortable area where the subjects could sit and write at a table without interference or distraction. The testing administrator read out the instructions as they appeared on each questionnaire booklet and encouraged each subject to read everything carefully, to mark the response sheet in answer to every question, and to be serious and honest in their responses. Adequate time was given to the subjects (approximately fifty minutes) to answer the three questionnaires so that they were not pressured into answering with undue haste.
3. The Department of Sport Activities returned the answer sheets.
4. The subjects' answers were scored and statistically analyzed.

Statistical Analysis

Means, standard deviations, frequencies, and percentages were calculated in order to identify the current attitudes of Iraqi females toward physical activity and to identify their interpersonal styles.

A Factor Analysis was performed on the General Interest Questionnaires (GIQ) in order to reduce its 40 variables into a smaller number of hypothetical constructs. This was done by conducting a principle components analysis where the resulting principal factors were used as a set of reference axes for rotation to the "varimax" criterion (Kaiser, 1958). The factor loading was then used to obtain the relationship between the GIQ factors, TAIS interpersonal subscales, and ATPA scales.

Pearson product moment correlation matrices were obtained to identify the relationship between the 10 GIQ factors, the 9 TAIS interpersonal subscales, and the 6 ATPA scales.

Log-linear models were used for the interpretation of different relationships between various selected variables (i.e., family encouragement of physical activity, family income, parents' education, physical orientation, self-esteem, child development, sibling participation in physical activity, and female participation in physical activity). According to Knoke and Burke (1982), log-linear model makes no distinctions between independent and dependent variables, but is used to examine relationships among categoric variables by analyzing expected cell frequencies.

CHAPTER IV

RESULTS AND DISCUSSION

The findings of this study generally revolved around four major aspects. First, the descriptive data on attitudes toward physical activity and interpersonal style of Iraqi female students (i.e., raw scores, means, standard deviations) was generated from administering the Kenyon scale of Attitude Toward Physical Activity (ATPA) and Nideffer's Test of Attentional and Interpersonal Style (TAIS) to the sample group of 70 Iraqi female university students. This data provided information on how Iraqi female students perceive physical activity and what type of interpersonal strengths and weaknesses they possess.

The second aspect of the data treatment was concerned with examining the "factor" structure of the General Interest Questionnaire (GIQ). It was considered appropriate to reduce the variable of the GIQ into a smaller number of hypothetical constructs.

From the descriptive base and the GIQ factor structure, the third thrust of this study was to explore the relationships between the constructs embedded in the three instruments. Here an attempt was made to examine whether or not attitude toward physical activity is connected to the interpersonal styles of Iraqi female university students and whether or not such relationships, if they exist, have meaning within the context of participation in physical activity by Iraqi females.

The fourth aspect of the data treatment focused on log linear analysis in order to test whether or not other combined variables such

as socio-economic, education and family encouragement may affect attitude and participation in physical activity.

Descriptive Data

Attitude Toward Physical Activity

By examining the means and standard deviations that were generated from the subjects' scores on Kenyon's ATPA scales (1968), it was found that female students at Baghdad University have a positive attitude toward physical activity. As can be seen in Table 1 the subjects' means on the six scales of the ATPA ranged between 25.34-33.64. The average score range was between 20-28; thus, the Iraqi females' means ranged between average to high.

The aesthetic subscale indicated the dominant attitude toward the physical activities of Iraqi female students. This indicated that Iraqi female students mainly view physical activity as possessing beauty or certain artistic qualities; their second preference was toward physical activity for health and fitness; third was physical activity as a social experience; fourth was physical activity as catharsis (release of tension); fifth was physical activity as an ascetic experience (strenuous training); and finally, physical activity as the pursuit of vertigo (thrill with some risk).

The findings of this study tend to agree with Corbin (1977) who found the aesthetic subscale as the dominant attitude toward physical activity of freshmen female students at Kansas State University. Also, the findings agree with Alderman (1970) who suggested that physical activity as an aesthetic experience was a first preference among women athletes.

Table 1

Means and Standard Deviations of the Attitude Toward Physical Activity Scale

Subscale	Means	Standard Deviations
Social	30.71	5.71
Health and Fitness	31.92	5.71
Thrill	25.34	5.43
Beauty (Aesthetic)	33.64	6.34
Tension (Catharsis)	29.34	7.92
Strenuous Training (Ascetic)	25.44	5.34

N = 70

In summary, Iraqi female university students have positive attitudes toward physical activity. This finding is supportive of hypothesis #1.

Interpersonal Styles of Iraqi Women

The interpersonal styles of Iraqi females who participated in this study were measured by Nideffer's Test of Attentional and Interpersonal Style (TAIS). According to the TAIS T scores, subjects who scored between 10-40 (T scores) were rated low; subjects who scored between 40-60 (T scores) were rated average; and subjects who scored between 60-90 (T scores) were rated high. Pratt and Nideffer's manual (1981) was used to interpret the subjects' scores on the interpersonal scales, and Table 2 summarizes the results of the Interpersonal Styles of Iraqi females.

On the Control (CON) and Self-Esteem (SES) scales, 37.1% (CON) and 27.1% (SES) of the subjects scored low. Such results suggest that situations which require the subjects to take charge in a competitive arena cause them to feel more pressure than they can handle. The subjects will want for someone else to take charge and when they must take a leadership position, the situation will be stressful for them even if they are qualified to cope with it. Success can be frightening to them because responsibility comes with success. Only 11.4% scored high on CON and SES. These individuals will be stressed when they are not in charge. As such, they are prone to authority conflicts, especially when those with whom they must share power are not respected or have a tempo different from theirs. The majority's average score was 51.4% (CON) and 61.4% (SES). According to Pratt and Nideffer (1981), moderate scorers are often ambivalent about taking control of different things. They will feel pressure from others as well as themselves because of

Table 2

Frequency and Percentage of Iraqi Females on Nideffer's Interpersonal Scales

	Low		Average		High	
Scale	Frequency	%	Frequency	%	Frequency	%
CON	26	37.1	36	51.4	8	11.4
SES	19	27.1	43	61.4	8	11.4
P/O	40	57.1	29	41.4	1	1.4
OBS	13	18.6	36	51.4	21	30.0
EXT	20	28.6	45	64.3	15	7.1
INT	8	11.4	43	61.4	19	27.1
IEX	20	28.6	49	70.0	1	1.4
NAE	18	25.7	35	50.0	17	24.3
PAE	15	21.4	55	78.6	-	-

N = 70

this ambivalence. Generally speaking, this data indicates Iraqi females lack self-confidence and decision-making capabilities.

This coincides with Al-Wardi's (1965) remarks that the decision-making in the traditional Iraqi family was controlled by the head of the household who was the father or the eldest son and was never delegated to the women of the household. Additionally, Al-Hassan (1973) indicated that women were treated with bias and a lack of dignity from childhood to old age. The woman's daily activities and functional tasks, and even her mental creativity, were considered as subservient to those performed by men. The birth of a son, for example, was a cause for celebration; not so for a daughter. Such principles and attitudes played a fundamental role in restricting women's social freedom over the ages, degrading her social position and breaking off her psychological and moral standing in society; therefore, her self-esteem was negatively affected.

On the Physical Orientation (P/O) scale, only 1.4% scored high while 57.1% scored low. This indicates that the majority of Iraqi female university students do not participate in and/or enjoy competitive sport or exercise. They may have positive attitudes toward these activities, but family pressure, due to social stereotyping, lack of participation in physical activity in their childhood has probably prevented them from participating.

Thirty percent of the subjects scored high on Obsessiveness (OBS) indicating these females have a tendency to ruminate and worry about one particular thing without any real resolution. They tend to take their problems everywhere they go and this causes interpersonal problems with others who tire of the person's inability to make decisions.

The Iraqi females in this study were more introverted than extroverted. While 27.1% scored high on Introversion (INT), only 7.1% scored

high on Extroversion (EXT). On the other hand, 28.6% scored low on EXT while 11.4% scored low on INT. These figures indicate that Iraqi females feel uncomfortable when they must face the public, especially when males are watching them. This is possibly one more reason for a lack of participation in physical activity and competitive athletics.

On the Intellectual Expression (IEX) scale, 1.4% scored high while 28.6% scored low. For those who scored low they may find themselves uncomfortable in situations which require them to express their thoughts and ideas. Thus, they may have a tendency to become quiet and to withdraw in situations that require intellectual expression, especially in group situations and particularly if they are low on SES and EXT.

It is interesting to note that 24.3% scored high on Negative Affect Expression (NAE) while no one scored high on Positive Affect Expression (PAE). The percentages of low scores on these two scales were 25.7% (NAE) and 21.4% (PAE). This indicates that these Iraqi females are more prone to express their anger and negative feelings to others than express their positive feelings of affection. With these scores they will be stressed when they are required to express positive emotions or be affectionate. This is especially difficult when they are inwardly critical of an individual or an idea. As pressure increases, they will tend to become even more critical or perhaps angry.

In summary, Iraqi female university students lack self-confidence and decision-making. These females are more introverted than extroverted, and they have the tendency to express their anger and negative feelings to others rather than express their positive feelings of affection.

Factor Analysis of the General Interest Questionnaire (GIQ)

The varimax-rotated factor analysis for the General Interest Questionnaire (GIQ) was utilized in order to emphasize the "cleaning up"

of factors rather than variables and to yield high loadings for a few variables and near zero loadings for the remainder. In this way the domain under question is reduced to a more easily interpretable set of factors.

The correlational matrix on the 40 GIQ questions in this study was subjected to a principle component analysis and 40 roots greater than unity were extracted. In view of the relative similarity in size of the latent root numbers, it was decided to use Cattell's (1962) "scree" test to determine the number of components for future analysis.

The "scree" test (Figure 1) was made by plotting the size of the latent roots against their frequency and smoothing the curve as seen in Figure 1. The point of uniform fall-off of the curve begins at root number ten. Since these first components had roots greater than unity, it was decided to proceed with these components for further interpretation.

Ten principle components were rotated in accordance with the varimax criterion using Kaiser's (1958) strict limit approach. An extract of the resulting factor loadings is shown in Table 3. The ten principle factors accounted for 69.2% of the variance (Table 4). The ten principle components which were rotated were labelled in accordance with the apparent constructs underlying each of the ten clusters of Intercorrelations.

Factor I. Parental Encouragement

Those variables with significant loadings on this factor were as follows:

GIQ-10	.40	GIQ-22	.51
GIQ-12	.72	GIQ-26	.46
GIQ-14	.42	GIQ-28	.80
GIQ-15	-.57	GIQ-30	.79
GIQ-20	.42		

Table 3
Rotated Factor Matrix of the GIQ

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6	FACTOR 7	FACTOR 8	FACTOR 9	FACTOR 10
GIQ1	-.20596	.07631	.06366	.18932	-.05985	-.12982	-.07851	.02309	-.11485	.81429
GIQ2	-.03142	.74167	-.11882	.15491	.06573	-.02550	.13293	.02229	-.05721	-.12061
GIQ3	-.29773	-.13701	-.00474	.33620	.15958	-.02779	.05698	-.10770	.84909	-.22346
GIQ4	.37076	.17840	-.07507	.21714	-.17844	-.46251	.50918	.00735	.06856	-.14559
GIQ5	.07964	.92530	.24501	.36661	-.29848	-.09881	-.32743	-.10318	.26353	-.00553
GIQ6	.24826	-.41681	-.20143	.39432	-.53719	-.11650	.11698	.10353	.02507	.01051
GIQ7	-.23220	-.06437	.02755	.22090	.05695	.11724	-.10934	.66601	.12417	.12038
GIQ8	-.07703	.28943	.36210	-.00593	-.00572	.22642	-.26685	.54958	-.06614	-.07212
GIQ9	-.03511	-.15841	-.00213	.08767	.39692	.57290	-.11736	.16949	.08817	-.00355
GIQ10	.40189	.32778	.14208	-.06256	.48642	-.26740	.15652	.04293	.21189	-.16890
GIQ11	.12053	.11472	.08364	-.17093	.62516	.29823	-.13069	.01807	.22957	.11928
GIQ12	.71992	.01140	-.21862	.04829	-.00835	-.15036	-.03551	-.21625	.08801	-.17068
GIQ13	-.09751	-.05784	-.06946	.19659	.70872	-.02625	-.10584	.09008	-.19217	-.21392
GIQ14	.42220	.19420	-.05271	-.31890	.24991	-.19088	-.08357	.13003	.18443	-.39978
GIQ15	-.56660	.26325	-.33486	.04063	-.11763	-.04135	-.01132	.01229	-.06505	.22712
GIQ16	-.04078	-.08346	-.40564	-.07676	.07106	.39817	-.07133	-.20381	.60121	.07154
GIQ17	.12610	.30645	.19743	-.12014	-.00783	-.01554	.07117	.09810	.68118	-.08674
GIQ18	.20664	.69905	-.11753	.01838	.06453	-.01879	.06421	-.32635	.16854	.24163
GIQ19	.24666	-.06850	.23239	-.12493	-.12495	.21020	.00341	.28894	.45039	-.33154
GIQ20	.42242	.22463	-.18706	.06058	.48372	.13686	.10862	-.32591	.06232	-.07486
GIQ21	-.06248	-.04858	.44440	.12670	.01567	-.11659	-.10848	.21735	.65483	.23410
GIQ22	.51108	.66989	-.08929	-.05367	.28152	.10230	.02110	.08759	-.08277	.00006
GIQ23	.17447	.42401	.04611	-.06605	-.00782	.62057	-.18776	.14306	-.07991	-.28769
GIQ24	-.04458	-.10549	.78740	-.01188	-.03965	.05191	.02402	-.01799	.17967	.12761
GIQ25	-.20114	-.06750	.16635	.11573	-.12930	.49866	-.05172	-.06647	-.00698	-.32221
GIQ26	.46771	.32879	.36353	.26873	.11372	-.17751	.28053	-.09686	.15499	.03403
GIQ27	-.18857	.12236	.10712	.10752	.08414	.29984	-.22142	-.71113	.01761	-.08452
GIQ28	.80013	.16722	.22966	.11148	.02180	-.06636	.25285	-.05628	-.07385	-.14322
GIQ29	.38248	.12105	.68747	.10518	.08595	.03136	-.01954	-.02697	-.08109	.05456
GIQ30	.79030	.16263	.06350	.11393	-.13722	-.04838	.09908	.10851	-.13038	.25330
GIQ31	.01500	-.08599	.37929	.02872	-.15357	.16229	-.06037	.30638	.11902	.60055
GIQ32	.37435	.43082	.19298	-.16674	.33378	.16085	.17164	.22650	.09564	.29150
GIQ33	.18894	.12184	-.02848	.79991	.08303	.06557	-.10404	.01470	-.06001	.15585
GIQ34	.15629	.21467	-.08064	.08144	.44106	.08388	.66265	-.16325	.06730	.10912
GIQ35	-.03393	.03502	.17204	.77388	-.16776	.12895	.03751	-.03047	-.02195	-.03683
GIQ36	.06650	.01717	-.00472	.03826	-.14118	-.10067	.84053	-.02724	-.01064	.00821
GIQ37	.08610	.02960	.02157	.69401	.18020	-.17754	.13858	.40110	.14318	.19374
GIQ38	.08179	-.05838	.23676	-.29417	-.23296	.10885	.62143	.14017	-.07660	-.30981
GIQ39	-.06795	.04901	-.08824	.02250	.07356	.73730	.12932	.06918	.04525	-.03736
GIQ40	-.02760	-.25068	.97366	.13043	.01290	-.08893	.06485	.40769	.25976	-.02882

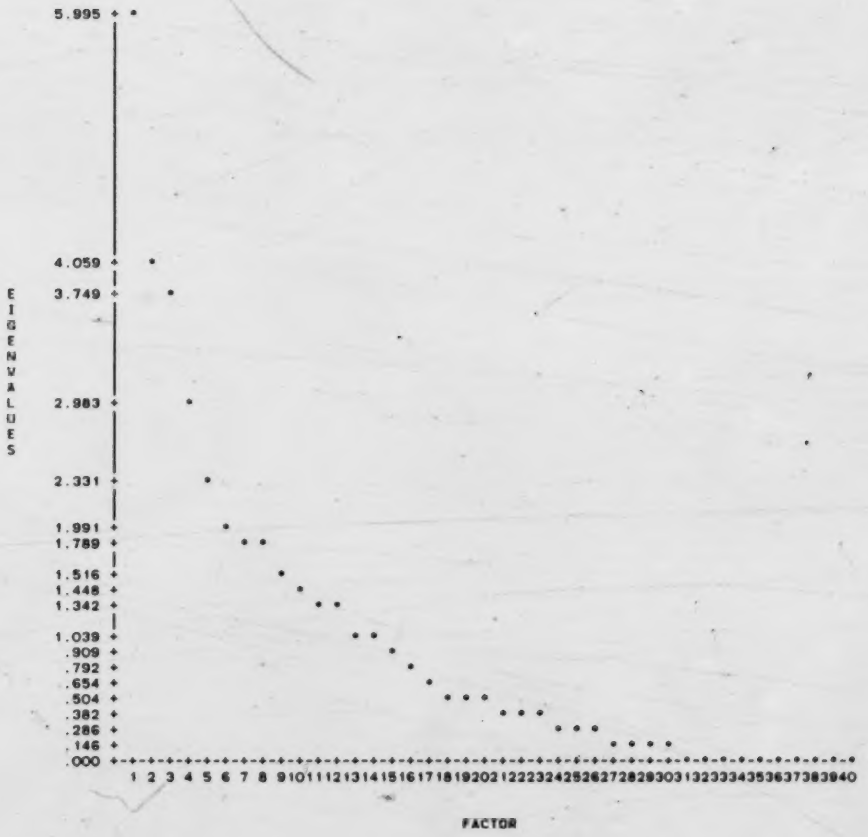
Table 4

Percentages of Variance of the GIQ Factors

FACTOR	EIGENVALUE	PCT OF VAR	CUM PCT
1	5.99454	15.0	15.0
2	4.05906	10.1	25.1
3	3.74837	9.4	34.5
4	2.98285	7.5	42.0
5	2.33148	5.8	47.8
6	1.99097	5.0	52.8
7	1.83806	4.6	57.4
8	1.78944	4.5	61.8
9	1.51608	3.8	65.6
10	1.44798	3.6	69.2
11	1.35416	3.4	72.6
12	1.34182	3.4	76.0
13	1.08062	2.7	78.7
14	1.03865	2.6	81.3
15	.90896	2.3	83.6
16	.79157	2.0	85.5
17	.65444	1.6	87.2
18	.61733	1.5	88.7
19	.57858	1.4	90.2
20	.50412	1.3	91.4
21	.43967	1.1	92.5
22	.38901	1.0	93.5
23	.38201	1.0	94.5
24	.31983	.8	95.3
25	.29823	.7	96.0
26	.28578	.7	96.7
27	.23880	.6	97.3
28	.19633	.5	97.8
29	.17308	.4	98.2
30	.14575	.4	98.6
31	.11800	.3	98.8
32	.10477	.3	99.2
33	.08107	.2	99.4
34	.07032	.2	99.5
35	.05690	.1	99.7

Figure 1

Scree Plot of Eigenvalues from GIQ Factor Analysis



The nature of this factor suggested a measure of parental encouragement of physical activity to improve social status of women. High scores by a female university student on these scales, except GIQ-15, would indicate that her parents encouraged her to participate and/or watch physical activity so that she could improve her social image and status.

Factor II. Practice of Physical Activity

Those variables with significant loadings on this factor were as follows:

GIQ- 2	.74	GIQ-22	.70
GIQ- 5	.53	GIQ-23	-.42
GIQ- 6	.42	GIQ-32	.43
GIQ-18	.70		

This factor provided an indication of a high need for the practice of physical activity. A high scorer on this factor can be described as a female that enjoys her participation in physical activity at home, club, and university and thinks that physical activity is an important part of her life which will make her a healthy person. Additionally, this female would advise other females to practise physical activity.

Factor III. Physical Activity as a Negative Experience

Those variables with significant loadings on this factor were as follows:

GI-16	-.40	GI-29	.69
GI-21	.44	GI-40	.57
GI-24	.80		

This factor described by these loadings is essentially a negative aspect of viewing physical activity. Females who score high on GIQ-21, 24, and 40 typically have negative attitudes toward physical activity and they

think it is a waste of time, it disturbs them and effects their behavior negatively.

Factor IV. Physical Activity as a Positive Experience

Those variables with significant loadings on this factor were as follows:

GIQ-33	.76	GIQ-35	.77	GIQ-37	.69

These three variables were considered as being representative of a female's positive attitude toward physical activity and she perceived the positiveness of participation in it. This female thinks that participation in physical education classes during the elementary stage enhances her practice of physical activity in the high school and university levels.

Factor V. Developmental Encouragement

Those variables with significant loadings on this factor were as follows:

GIQ- 6	-.53	GIQ-13	.71
GIQ-10	.49	GIQ-20	.48
GIQ-11	.63	GIQ-34	.44

The nature of this factor represents the effects of encouragement on female children to participate in physical activity and how this participation enhances positive attitude toward it. As a result of such encouragement and actual early childhood participation, high scorers on this factor think that practising physical activity helps female students to study vigorously.

Factor VI. Sex-Role Factors in Physical Activity

Those variables with significant loadings on this factor were as follows:

GIQ- 4	-.46	GIQ-25	.50
GIQ- 9	.57	GIQ-39	.74
GIQ-23	.62		

This factor described by these loadings is concerned with sex-role factors in physical activity. High scorers on this factor prefer practising physical activity in private places and not allowing men to observe their movements.

Factor VII. High School versus Parental Support of Physical Activity

Those variables with significant loadings on this factor were as follows:

GIQ- 4	.51	GIQ-36	.84
GIQ-34	.66	GIQ-38	.62

This factor provided an indication of importance of participation in physical activity during high school. Those who scored high on this factor practise physical activity even if their parents discouraged them from participation in physical education classes during elementary and high school.

Factor VIII. Value of Physical Activity versus Religious Influence

Those variables with significant loading on this factor were as follows:

GIQ- 7	.67	GIQ-37	.40
GIQ- 8	.55	GIQ-40	.41
GIQ-27	.71		

The nature of this factor represents females' views of physical activity

with regard to religion. Subjects with high scores on this factor think that the practise of physical activity and sport by women is contrary to religion. Additionally, they may not be inclined to watch sport activities on television.

Factor IX. Value of Physical Activity versus Traditional and Sexual Stereotyping

Those variables with significant loadings on this factor were as follows:

GIQ- 3	.55	GIQ-19	.45
GIQ-16	.60	GIQ-21	.65
GIQ-17	.68		

This factor represents views that coincide with a negative attitude toward physical activity. High scorers on this factor tend to think only about the negative explanations for a woman's participation in physical activity. They think that practice of physical activity by women is contrary to traditions, that it affects their behavior negatively, makes them look masculine, and negatively affects their social reputation.

Factor X. Family Encouragement of Physical Activity

Those variables with significant loadings on this factor were as follows:

GIQ-1	.81	GIQ-31	.60

These two variables were considered as representative of encouragement of physical activity by the family. High scores on this factor were obtained by female students whose families encouraged them to practise physical activity and whose mothers were actual participants in physical and sport activities.

In summary, the factor structure of the GIQ revealed 10 factors. Variables with significant loadings were highlighted on each factor indicating what these factors represent with regard to physical activity. This analysis will help to examine hypotheses 3, 4, 5 and 6.

TAIS/GIQ/ATPA Relationships

The relationships between the constructs embedded in the three tests were examined by generating three correlational matrices. Firstly, between interpersonal style and Kenyon's six scales, secondly, between interpersonal style and the ten factors of the General Interest Questionnaire (GIQ), and thirdly, between Kenyon's six scales and the GIQ ten factors.

TAIS/ATPA Relationships

Pearson product-moment correlation coefficients were calculated between each of the nine TAIS interpersonal scales and the six scales of Kenyon's inventory. In examining the correlational matrix generated by this procedure (Table 5) one can see that though the coefficients ranged only from low to very low, several statistically significant relationships did appear. Probably, the most stiking feature is that the Introversion (INT) Scale on the TAIS significantly correlated with three of the Kenyon scales, namely: physical activity as a social experience ($r = .22$), physical activity for health and fitness ($r = .25$), and physical activity for release of tension ($r = .24$).

These low but significant correlations between INT and the three Kenyon scales (social, fitness and tension) would seem to indicate that Iraqi female university students who are considered introverted (e.g., who like to be alone, and avoid being the center of attention), have a positive attitude toward physical activity as a social experience which

Table 5

TAIS Interpersonal Scales and Kenyon's Scales Intercorrelation Matrix

	CON	SES	P/O	OBS	EXT	INT	IEX	NAE	PAE
Social	.07	-.07	-.02	.10	.10	.22*	-.06	.12	-.06
Fitness	.10	-.09	.03	.07	.10	.25*	.00	.11	-.15
Thrill	.05	.05	.08	.20*	.15	.06	.04	.05	.05
Beauty	-.00	-.08	-.12	.04	.06	.13	.00	.06	-.08
Tension	-.12	-.07	-.20*	.01	.00	.24*	-.19	.05	-.12
Training	.06	.05	-.01	.01	.14	.09	.04	.17	.19

* $p < .05$

N = 70

provides opportunities for social participation; that is, to meet new people and continue personal friendships. These subjects think that participation in physical activity, primarily to improve one's health and physical fitness, as well as practising or watching others practise physical activities provides a release from tension. This may be interpreted as their introversion style being due to the pressure imposed upon them by their families and society even though it did not affect their positive attitude toward physical activity. Whether they participated in physical activity or not, they believe in the importance of it. This coincides with Festinger's theory of cognitive consistency (1957) which indicates that when a person has two opposite cognitions, dissonance exists. Therefore, an inconsistency exists between their attitudes toward physical activity and their actual behavior.

Cognitive dissonance may be reduced so that women who participate in physical activity develop an interest as a means of coping with their introvertive tendencies. That is, dissonance between an inner-directed withdrawing personality trait and the social, out-going physical activity interest creates a balance in their life. The feelings and attitudes toward sports can be seen as a useful means of reducing this dissonance and allows the "introverted" tendency an acceptable means of self-development. Additionally, it is quite possible that women who develop an interest in physical activities are the same people who might have a tendency toward an introverted personality style. Dissonance theory, however, may not be a useful theoretical model to explain this relationship. Rather, cultural factors which limit women's roles in athletic activities may give way to a general withdrawing tendency, an introverted character trait in females. Physical development through sport activity is an increasingly popular cultural activity and women are more

frequently involved in such activities. This relationship of introversion to interest in physical activities may signal a new era for women athletes in Arab countries.

Another statistically significant relationship was formed between Physical Orientation (P/O) with physical activity for the release of tension ($r = -.20$), indicating that those Iraqi females who participate in and enjoy competitive athletics do not think that participation, or watching others participate in physical activities, is a way of avoiding the problems of modern living.

Additionally, the interpersonal scale of "obsessiveness" (OBS) correlated with Kenyon's scale of physical activity as a thrill involving some risk ($r = .20$). This relationship indicates that those females who have tendencies to ruminate and worry about one particular thing without any real resolution or movement think that physical activities provide some risk to the participant, such as thrills and excitement through speed, acceleration, sudden change of direction, and exposure to dangerous situations. They are anxious to participate in such activities because their needs for activity are met.

TAIS/GIQ Relationship

A matrix was obtained for the correlations between the TAIS interpersonal scales and the ten GIQ factors as shown in Table 6. As can be seen in Table 6, relatively low correlations were obtained, indicating a moderate to low relationship between the TAIS interpersonal scales and the GIQ factors.

A statistically significant negative correlation was formed for the first factor, Parental Encouragement, and NAE (Negative Affect Expression) ($r = .21$). This might indicate that Iraqi university female students

Table 6

TAIS Interpersonal Scales and GIQ Factors Intercorrelation Matrix

	CON	SES	P/O	OBS	EXT	INT	IEX	NAE	PAE
Factor 1	.03	.02	.12	.05	.03	-.12	-.06	-.21*	.08
Factor 2	.02	.04	-.04	.21*	.06	-.00	.07	-.00	.05
Factor 3	.07	-.04	-.11	.10	-.06	.01	-.02	.04	.10
Factor 4	.19	.12	-.01	-.17	.15	.29*	-.02	.08	-.13
Factor 5	-.10	-.11	.02	-.09	.07	-.23*	-.08	-.07	.06
Factor 6	-.02	.26*	-.11	.09	.27*	.07	.10	-.00	.23*
Factor 7	-.13	-.04	.00	-.07	.32*	-.04	.23*	-.14	-.21
Factor 8	-.17	-.08	.04	.00	-.13	-.08	.17	-.10	-.04
Factor 9	-.17	-.15	-.01	.19	-.12	-.14	-.09	-.02	-.16
Factor 10	.34*	-.06	-.24*	.04	-.07	.08	-.07	-.06	-.09

* $p < .05$

N = 69

who lack parental encouragement to participate in physical activity, tend to be critical of others who do participate. They express their anger and negative feelings to others.

The TAIS interpersonal scale "Obsessive" (OBS) significantly correlated with the second factor, Practice of Physical Activity ($r = .21$). This indicated that those females who are considered obsessive may not participate in physical activity.

An interesting relationship was found between the fourth factor, Physical Activity as a Positive Experience, and Introversion (INT) ($r = .29$). This relationship may be interpreted to mean that introverted Iraqi females have positive attitudes toward physical activity even if they do not actually participate in it.

The Introversion (INT) scale negatively correlated with the fifth factor, Development Encouragement ($r = .23$). Thus, Iraqi females who are considered introverts lacked support for participation in physical activity.

The sixth factor, Sex-Role in Physical Activity, significantly correlated with Self-Esteem (SES) ($r = .26$), Extroversion (EXT) ($r = .27$), and Positive Affect Expression (PAE) ($r = .23$). This relationship indicates that outgoing Iraqi university female students who think highly of themselves and express their positive feelings of affection to others like to participate in physical activities but they prefer to do it in private places or with females only.

The seventh factor, High School versus Parental Support significantly correlated with Extroversion (EXT) ($r = .32$) and Intellectual Expression (IEX) ($r = .23$). Thus, those Iraqi females who are considered extroverted and intellectually expressive tended to participate in physical activity and physical education classes in the high school stage despite

the discouragement of some of their parents.

While the eighth and ninth factors did not form any significant correlation with TAIS interpersonal variables, the tenth factor, Family Encouragement of Physical Activity, formed the highest correlation between any of the GIQ factors and the interpersonal scales. A moderate relationship like this indicates that the Iraqi female students who had their families' encouragement for participation in these activities developed a command of control over most of their situations, interpersonal and otherwise.

In summary, there were few statistically significant relationships between attitude toward physical activity of Iraqi female students and their interpersonal style. The Introversion subscale formed significant relationships with physical activity as a social experience, as an activity to improve health and fitness, and for the release of tension. Other relationships were between Obsessiveness and physical activity as a thrill, and between Physical Orientation and physical activity as a release of tension. Consequently these findings are supportive of Hypothesis #2.

GIQ-ATPA Relationship

A matrix was obtained for the correlations between the ten General Interest Questionnaire (GIQ) and Kenyon's Attitude Toward Physical Activity Inventory (ATPA) scales as shown in Table 7.

The only significant statistical correlation between the GIQ factors and Kenyon's scales were between Physical Activity as Thrill and factor activity ($r = .23$). Thus, Iraqi female students who perceive physical activity as a thrill and exciting, but providing exposure to risk and dangerous situations, had encouragement from their parents to

Table 7

GIQ Factors and Kenyon Scales Intercorrelation Matrix

	Social	Fitness	Thrill	Beauty	Tension	Training
Factor 1	.03	.09	.28*	.15	.10	.09
Factor 2	.18	.04	.08	.06	.05	.06
Factor 3	.11	.03	-.05	.13	-.15	.02
Factor 4	.05	-.06	-.12	-.01	.01	-.04
Factor 5	-.18	-.10	-.09	-.05	-.19	-.12
Factor 6	-.14	-.13	.23*	.04	-.12	.11
Factor 7	-.13	-.09	.05	-.06	-.06	.01
Factor 8	-.05	.00	-.10	.03	-.04	-.14
Factor 9	-.18	-.20	-.10	.07	-.14	.04
Factor 10	-.14	-.15	.09	-.17	-.10	.04

* $p < .05$

N = 69

participate in this activity; however, they prefer to practise it in private or in front of fellow female students only.

The Log-Linear Models

The log-linear model was used in this study in order to examine relationships among categoric variables. By using this model, no distinction between independent and dependent variables (Knoke and Burke, 1982) has been done. This means that all variables were treated alike as "response variables" whose mutual associations were explored. The criteria to be analyzed were the expected cell frequencies as a function of all the variables in the model. In interpreting log-linear models, non-significant chi-square of a factor makes it more important. This means that the higher a chi-square, the lower the significance of this factor in providing data that fit the log-linear model.

Relationship Between Income, Education and Attitude

This part of the investigation was to explore the relationship between family monthly income and parents' education and how they affect attitudes of Iraqi females toward physical activity.

Family income was divided into four categories. These categories were as follows:

Below 200 Dinnars* per month

200 - 250 Dinnars per month

250 - 400 Dinnars per month

Above 400 Dinnars per month

Parents' education was also divided into four categories. These categories were as follows:

---

*one Iraqi Dinnar = CDN $4.1 (estimate)

Both parents illiterate

One parent holds a high school diploma

One parent holds a university degree

Both parents hold a university degree

Attitude toward physical activity was measured by Kenyon's ATPA scale with the scores of each subject on each of the six ATPA subscales being divided into three categories. These categories were as follows:

Below 20 - low

20 - 28 - medium

28 - 40 - high

As can be seen in Tables 8, 9, 10, 11, 12, and 13, Family Income was not a satisfactory explanatory factor for these log-linear models ($p < .0084$). Parents' Education, however, provided more data to fit these models, thus indicating that education has more impact on the attitudes of Iraqi females toward physical activity. One might speculate that the reason for this is education helps in the teaching and learning of basic truths, fundamental skills and modes of behavior. Thus parents can learn more about physical activity and the importance of participation in it during their years of schooling and then perhaps encourage their children to hold a positive attitude toward physical activity. On the other hand, high income does not mean a change in attitude toward physical activity, especially if parents are insufficiently educated. It is evident in Iraq that rich people with no or little education are socially conservative and do not view physical activity and sports favorably.

This finding indicates a partial support for Hypothesis #3.

Table 8

Log-Linear Model of Social, Parents' Education and Family Income

Effect	D.F.	Chi-square	Prob
Social	2	31.38	0.0000
Income	3	11.73	0.0084
Education	3	6.21	0.1018
Social/Income	7	8.05	0.3278
Social/Education	8	9.57	0.2966
Education/Income	12	30.42	0.0024

Table 9

Log-Linear Model of Fitness, Parents' Education and Family Income

Effect	D.F.	Chi-square	Prob
Fitness	2	52.02	0.0
Income	3	11.73	0.0084
Education	3	6.21	0.1018
Fitness/Income	7	4.69	0.6974
Fitness/Education	8	4.98	0.7596
Education/Income	12	34.08	0.0007

Table 10

Log-Linear Model of Aesthetic, Parents' Education and Family Income

Effect	D.F.	Chi-square	Prob
Aesthetic	2	53.53	0.0
Income	3	11.73	0.0084
Education	3	6.21	0.1018
Aesthetic/Income	6	6.66	0.3535
Aesthetic/Education	9	13.59	0.1375
Education/Income	11	31.79	0.0008

Table 11

Log-Linear Model of Thrill, Parents' Education and Family Income

Effect	D.F.	Chi-square	Prob
Thrill	2	17.74	0.0001
Income	3	11.73	0.0084
Education	3	6.21	0.1018
Thrill/Income	6	4.04	0.6706
Thrill/Education	6	7.71	0.2603
Education/Income	15	34.20	0.0032

Table 12

Log-Linear Model of Catharsis, Parents' Education and Family Income

Effect	D.F.	Chi-square	Prob
Catharsis	2	10.58	0.0050
Income	3	11.73	0.0084
Education	3	6.21	0.1018
Catharsis/Income	8	20.87	0.0075
Catharsis/Education	6	12.57	0.0505
Education/Income	14	38.11	0.0005

Table 13

Log-Linear Model of Ascetic, Parents' Education and Family Income

Effect	D.F.	Chi-square	Prob
Ascetic	2	18.74	0.0001
Income	3	11.73	0.0084
Education	3	6.21	0.1018
Ascetic/Income	6	7.16	0.3063
Ascetic/Education	6	8.80	0.1852
Education/Income	15	36.12	0.0017

Relationship Between Income, Education, and Physical Orientation (P/O)

This log-linear model was utilized to explore the relationship between family income, parents' education, and their effect on participation of Iraqi females in sport activities which was represented by Nideffer's physical orientation subscale (P/O). Family Income probability as shown in Table 14, is ($p < .001$) while the Parents' Education probability is ($p < .98$) indicating that educational background plays a more significant role than the Family Income in affecting the participation of Iraqi females in sport activities. This may be interpreted as those females who have parents with high education realize the importance of physical activity and encourage their daughters to participate in this event.

Relationship Between Self-Esteem, Parents' Education, and Family Encouragement of Physical Activity

This log-linear model was used to investigate the effect of parents' education and family encouragement of physical activity which was represented by Factor X of the GIQ. Table 15 shows that family encouragement with $p < .95$ probability and parents' education with $p < 0.003$ probability indicates that families who encourage their daughters to practise physical activity have a higher significant impact on the self-esteem of these females than the impact of their parents' education. This finding provided support for Hypothesis #4.

Relationship Between Physical Orientation, Self-Esteem, and Sibling Participation in Physical Activity

This log-linear model was used to investigate the effect of sibling participation in physical activity on the self-esteem of Iraqi females and their physical orientation (P/O). It seems from Table 16 that sibling participation has a higher effect on SES ($p < .39$) than

Table 14

Log-Linear Model of Parents' Education, Family Income, and Physical Orientation

Effect	D.F.	Chi-square	Prob
Physical Orientation	2	11.11	0.0039
Income	3	25.33	0.0000
Education	2	0.04	0.9821
Physical Orientation/Income	6	4.78	0.5728
Physical Orientation/Education	4	1.88	0.7585
Education/Income	6	12.12	0.0594

Table 15

Log-Linear Model of Self-Esteem, Parents' Education, and Family Encouragement

Effect	D.F.	Chi-square	Prob
Self-Esteem (SES)	2	0.26	0.8793
Parents' Education (E)	3	13.38	0.0039
Family Encouragement (E)	2	0.09	0.9574
Self-Esteem/Education	6	2.90	0.8213
Self-Esteem/Education	4	5.61	0.2301
Education/Family Encouragement	6	2.58	0.8590

Table 16

Log-Linear Model of Physical Orientation, Self-Esteem, and Sibling Participation in Physical Activity

Effect	D.F.	Chi-square	Prob
Physical Orientation	2	14.77	0.0005
Self-Esteem	2	0.26	0.8793
Sibling Participation	2	0.09	0.9575
Physical Orientation/ Self-Esteem	5	14.36	0.0135
Physical Orientation/ Sibling Participation	5	10.79	0.0558

Table 17

Log-Linear Model of Physical Orientation, Developmental Encouragement, and Family Discouragement of Physical Activity

Effect	D.F.	Chi-square	Prob
Physical Orientation	2	14.77	0.0005
Developmental Encouragement	2	0.00	1.0000
High School	2	0.09	0.9574
Physical Orientation/ Developmental Encouragement	4	2.86	0.5812
Physical Orientation/ High School	4	2.16	0.7072
Developmental Encouragement/ High School	4	5.31	0.2573

P/O ($p < .05$). This indicates that self-esteem of Iraqi female university students is likely to be enhanced when their sibling participates in physical activity. These subjects have more freedom which creates a better atmosphere and gives them an opportunity to be more confident in themselves and this encouraged them to practise physical activity. This finding supports Hypothesis #5.

Relationship Between Physical Orientation, Development Encouragement, and Participation in Physical Activity During High School

This log-linear model was concerned with the effect of encouragement of families on their female children to participate in physical activity in childhood (factor V of the GIQ) and the effect of family discouragement on those females who like to practise physical activity during high school (factor VII of the GIQ) on the participation of Iraqi female university students in sport activities. Table 17 showed that family support during childhood has a significant impact on the attitude of Iraqi female university students toward sport activities ($p < 1.00$). This indicates a support for Hypothesis #6.

Discussion

It was anticipated in Hypothesis #1 that significant relationships would exist between an Iraqi female's attitude toward physical activity and her Interpersonal style. Although there was some statistically significant support for Hypothesis #1, the correlations were low and not as psychologically important as predicted. The Introversion (INT) scale of the TAIS accounted for 3 out of 5 significant relationships between the 9 (TAIS) Interpersonal variables and 6 ATPA scales. Despite the introversion tendency of more than 27% of Iraqi females, these women had positive attitudes toward physical activity. The results of the descriptive data

afforded good support for Hypothesis #2. The introversion style which may have been due to the pressure imposed upon the subjects by their families and society did not affect their positive positive attitude toward physical activity. Whether the subjects participated in physical activity or not, they believed in the importance of it. This coincides with Festinger's theory of cognitive consistency (1957) which indicates that when a person has two opposite cognitions, dissonance exists; therefore, there is an inconsistency between their attitudes toward physical activity and their actual behavior. That is, dissonance between an inner-directed, withdrawing personality trait and the social, out-going physical activity interest creates a balance in their life. Their feelings and attitudes about sports is seen as a useful means for reducing this dissonance and allows the "introverted" trait as acceptable means of self-development.

The result of the log-linear models confirmed Hypotheses #3, 4, 5, and 6. Parents' education and family income affect the attitudes of Iraqi females toward physical activity. These two factors also may affect the family encouragement of the female children; thus, increasing their participation in physical activity in elementary and high school as well as in the university.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The central purpose of this study was to investigate the relationship between the interpersonal styles of Iraqi females and their current attitudes toward participation in physical activity.

Seventy female students from the University of Baghdad in Iraq were adminstered three different questionnaires: The Test of Attentional and Interpersonal Style (TAIS), the Attitude Toward Physical Activity Inventory (ATPA), and the General Interest Questionnaire (GIQ).

Data included means, standard deviations, and percentages regarding the TAIS and ATPA. A factor analysis was performed on the 40 GIQ items. The resulting principle factors were used as a set of reference axes for rotation to the "varimax" criterion. Correlation matrices were obtained to identify the relationship between the six ATPA scales, the nine TAIS Interpersonal scales, as well as the five extraced GIQ factors. Log-linear models were utilized to explore the relationship between attitude toward physical activity and participation in sport by Iraqi females, particularly as affected by family income, parents' education, family encouragement, and sibling participation in physical activity.

It was found that female students at the University of Baghdad have positive attitudes toward physical activity. The interpersonal styles of these females indicated that they lack self-confidence and decision-making capabilities. These females have a tendency to worry about one particular thing without any real resolution. Iraqi females are more introverted

than extroverted and in addition, they have more of a tendency to express their anger and negative feelings to others than to express positive feelings of affection.

The factor analysis revealed ten GIQ factors, namely:

Factor I: Parental Encouragement

Factor II: Practise of Physical Activity

Factor III: Physical Activity as a Negative Experience

Factor IV: Physical Activity as a Positive Experience

Factor V: Developmental Encouragement

Factor VI: Sex-Role Factors in Physical Activity

Factor VII: High School versus Parental Support of Physical Activity

Factor VIII: Value of Physical Activity versus Religious Influence

Factor IX: Value of Physical Activity versus Tradition and Sexual Stereotyping

Factor X: Family Encouragement of Physical Activity

The GIQ factor structure helped to better describe Iraqi females' interests in physical activity and showed a clearer picture of how their families view physical activity and to what extent they encourage participation in this social activity.

The correlation coefficients between the TAIS Interpersonal sub-scales, ATPA scales, and the GIQ factors ranged from low to very low, although several statistically significant relationships did appear. The Introversion (INT) scale on the TAIS significantly correlated with three of the ATPA scales: 1) physical activity as a social experience ($r = .22$), 2) physical activity for health and fitness ($r = .25$), and 3) physical activity for release of tension ($r = .24$).

The Introversion (INT) scale formed a positive correlation with factor III (r = .29) and a negative correlation with factor IV (r = .23), while the Extroversion (EXT) scale correlated with factor VI (r = .27) and with factor VII (r = .32). The highest significant correlation was formed between factor X and control (CON) (r = 34).

Two statistically significant correlations were found between Kenyon's Physical Activity as a Thrill Scale and factor I (r = .28) and factor VI (r = .28).

Log-linear models were utilized to further investigate the relationships among different variables and how they affect the outcome of each other. It was found that parents' education has a more significant role than family income in affecting the attitude of Iraqi female university students toward physical activity and their participation in sports. In addition, encouragement of females to participate in physical activity in early childhood and sibling participation in sport improve these females' image and attitudes toward physical activity and may encourage them to practise sport events during their university study. This may improve their self-esteem and make them more self-confident.

Conclusions and Recommendations

1. Although most of the subjects in this study have positive attitudes toward physical activity, only a few of them actually participate in sport or other physical activities at the university or sport clubs. This is due to different factors such as family pressure, traditions, religious beliefs, parents' education, parents' income, and past experience. Further research is needed to explore these factors. In addition, genuine efforts by different organizations such as the Ministry of Education, Ministry of Youth, women and

students' federations should try to educate the people about the benefits of sport and physical activity in their life, particularly women. This effort needs a great amount of cooperation by the media and government endorsement.

2. Females in Iraq lack participation in physical activity in their childhood and early adolescence which affects their participation in physical activity during their university study. This lack of participation during the elementary and high school period is due to some of the factors mentioned in item 1 above as well as to improper or the lack of sport facilities and equipment in schools, -- lack of female physical education teachers, consideration of physical education classes as an important program and lack of outdoor activities. Significant changes are needed for physical education programs and classes in schools to make them attractive to the students. Efforts should be directed toward changing the attitudes of teachers and school principals toward the physical education classes in schools and changing the opinions of parents about sport and physical activity in order to make it more positive. Adults should not only encourage their children to participate in physical activity, but appropriate sports facilities must be considered in the construction of new schools in the future. In the mean time, sports clubs and youth centres which are located near schools should be used.
3. The majority of Iraqi females have low or moderate self-esteem. Therefore, they lack self-confidence and decision-making capabilities which make them less capable of dealing with environmental demands and therefore prone to increased anxiety under pressure. Iraqi females who practise physical activity and sport think that their participation in these activities help them improve their self-

esteem. Other ways to improve female self-esteem can be done through improving social equality and the social status of women, realistic programs of goal-setting, and sharing in the decision-making. An intensive program of meaningful interviews may help people talk about themselves to overcome their perceived personal inadequacies.

4. It was anticipated that stronger relationships would appear between the attitudes toward physical activity and the interpersonal styles of Iraqi females. Further research is required to explore other psychological constructs that may have a stronger relationship with attitudes toward physical activity. Such studies could well examine the relationship between attitudes and cognitive style, locus of control (internal versus external), and motivation. A cognitive model could then be used to place these findings within a consistent theoretical framework.

Implications

Iraqi women in general lack self-confidence which is a fundamental need and without it they have difficulty fulfilling their goals and objectives. Participation in social activities may be considered a valuable aspect of enhancing self-confidence. Furthermore, sport as a social movement, is essential for females in Iraq to be involved in if women are to increase their self-esteem. This is indicated by the findings in this study in that those females who participate in physical activity and sport have higher self-esteem than non-participants. Hogg (1982) lists other ways in which self-esteem might be enhanced, such as goal-setting, self-reinforcement, communication and encouragement. By enhancing the self-esteem of Iraqi females, these women can better face their environmental demands both actively and assertively, as well as, develop

better leadership qualities, and become less obsessive. Thus, they may become less critical and more positive thinking. According to Clemes and Bean (1980) people with high self-esteem act independently, assume responsibility, tolerate frustration, approach new challenges with enthusiasm, feel capable of influencing others, and exhibit a broader range of emotions and feelings. In the opinion of the author, participation in sport by Iraqi women has other benefits such as: 1) social, esthetic, and educational experiences, 2) prevention of obesity, muscular atropy, 3) improving mental and physical health, 4) relief from stresses, and 5) resistance to aging and enhancing the quality and duration of their lives.

It is self-evident that the picture of sports in any area of the world is a fluid and rapidly evolving phenomenon, the determinants of which are a function of economic, cultural, and social development as well as of the political and educational systems in place. The facts show that today sport has a more and more important place in daily life, particularly in the structure of leisure time. While men in Iraq have a good access to sport, women, as a group, have not had equal access nor has society promoted their participation in a manner equal to the encouragement given to males.

A decisive factor for the future of female participation in physical activity and sport will be attitudes of their parents toward the idea of physical training for their children. Therefore, different forms of training programs should be offered for mothers and their children in different activities and sports. Acceptance by mothers is the best guarantee for the future of sports for a whole generation. Possibly some of the implications of these sessions should be as follows:

1. They must be fun.
2. Activities must allow everyone to participate.
3. Activities must suit everyone.
4. Satisfaction must be built in.
5. Sportsmanship, fair play, and courtesy are vital in all games.

After each session a small group discussion and decision-making approach should be encouraged. An important feature of the small group technique as suggested by Heinzelmann and Bagley (1970) is that it involves the participant more actively in the decision-making process and allows her to better consider the potential costs and benefits of the program.

Physical education programs in the schools should be changed drastically to be more attractive, especially for the girls. Physical education teachers should not emphasize competitive sport, rather they should promote the more recreational forms of physical activity. Individual and group activities should be encouraged on the basis of fun, understanding, and participation by all pupils. A large emphasis ought to be given to the development of the mental and physical health of these pupils in order to overcome any difficulties arising from changes in the physical education programs in school. As well, physical education teachers must be re-trained.

Hopefully, the impact of this study on the female movement in Iraq will:

1) Increase the opportunity for more research on female attitudes and participation in physical activity and sport.
2) Clear the way for more action toward enhancing the freedom and social status of Iraqi women.

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APPENDICES

APPENDIX A

ATTITUDE TOWARD PHYSICAL ACTIVITY INVENTORY (ATPA)

INSTRUCTIONS

The purpose of this inventory is to obtain an estimate of your attitude toward, and your interest in, physical activity.

This is achieved by presenting several concepts, each one of which may be a different way of viewing physical activity for you. Your response to each of these concepts is determined by what meaning it has for you. You will judge each against a series of descriptive scales.

For example:

REFEREE One who oversees an athletic contest

If you feel that this particular concept in the box is VERY CLOSELY RELATED to one END of the scale:

you mark either here or here

fair X : ___ : ___ : ___ : X unfair
1 2 3 4 5

If REASONABLY RELATED:

you mark either here or here

fair ___ : X : ___ : X : ___ unfair
1 2 3 4 5

If you consider the concept to be:

1. NEUTRAL on the scale, or
2. Completely UNRELATED to the scale

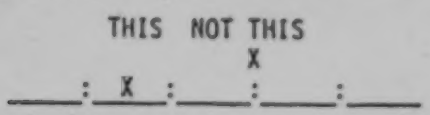
you mark as follows: here

fair ___ : ___ : X : ___ : ___ unfair
1 2 3 4 5

Instructions (continued)

As you proceed through the inventory it is important to keep in mind the following points:

1. Place your check-marks in the middle of spaces, not on the boundaries:



2. Be sure you check all eight scales for each concept - do not omit any.

3. Never put more than one check-mark on a single scale.

4. The numbers under each scale are merely to assist in analysis of the data by computers. Do not pay any attention to them.

5. Sometimes you may feel as though you've had the same item before on the test. This will not be the case, so do not look back and forth through the items.

6. Do not try to remember how you checked similar items earlier in the test.

7. Interpret each item separately and independently.

8. Work at a fairly high speed through the test. Do not worry or puzzle over individual items. It is your first impressions, the immediate "feelings" about the items, that are important. On the other hand, do not be careless.

IMPORTANT NOTE:

This inventory has been originally designed to evaluate high school students. As a result, you will find that some of the questions seem irrelevant as far as you are personally concerned. Please answer them anyway, but disregard the intent underlying the question. This is because ALL RESULTS are treated by a computer.

Express on the scales below what this concept means to you

PHYSICAL ACTIVITY AS A SOCIAL EXPERIENCE
Sports, games and other forms of physical recreation whose primary purpose is to provide opportunities for social participation; that is, to meet new people and continue personal friendships.

As you proceed, always be thinking about the idea or concept in the box

1. good ___:___:___:___:___ bad
   1 2 3 4 5
2. worthless ___:___:___:___:___ worthwhile
   1 2 3 4 5
3. pleasant ___:___:___:___:___ unpleasant
   1 2 3 4 5
4. sour ___:___:___:___:___ sweet
   1 2 3 4 5
5. nice ___:___:___:___:___ awful
   1 2 3 4 5
6. sad ___:___:___:___:___ happy
   1 2 3 4 5
7. clean ___:___:___:___:___ dirty
   1 2 3 4 5
8. relaxed ___:___:___:___:___ tense
   1 2 3 4 5

PHYSICAL ACTIVITY FOR HEALTH AND FITNESS
Participation in physical activity primarily to improve one's health and physical fitness.

9.	good	___:___:___:___:___					bad
		1	2	3	4	5	
10.	worthless	___:___:___:___:___					worthwhile
		1	2	3	4	5	
11.	pleasant	___:___:___:___:___					unpleasant
		1	2	3	4	5	
12.	sour	___:___:___:___:___					sweet
		1	2	3	4	5	
13.	nice	___:___:___:___:___					awful
		1	2	3	4	5	
14.	sad	___:___:___:___:___					happy
		1	2	3	4	5	
15.	clean	___:___:___:___:___					dirty
		1	2	3	4	5	
16.	relaxed	___:___:___:___:___					tense
		1	2	3	4	5	

PHYSICAL ACTIVITY AS A THRILL BUT INVOLVING SOME RISK
Physical activities providing, at some risk to the participant, thrills and excitement through speed, acceleration, sudden change of direction, and exposure to dangerous situations.

17. good ___:___:___:___:___ bad
(1 2 3 4 5)

18. worthless ___:___:___:___:___ worthwhile
(1 2 3 4 5)

19. pleasant ___:___:___:___:___ unpleasant
(1 2 3 4 5)

20. sour ___:___:___:___:___ sweet
(1 2 3 4 5)

21. nice ___:___:___:___:___ awful
(1 2 3 4 5)

22. sad ___:___:___:___:___ happy
(1 2 3 4 5)

23. clean ___:___:___:___:___ dirty
(1 2 3 4 5)

24. relaxed ___:___:___:___:___ tense
(1 2 3 4 5)

PHYSICAL ACTIVITY AS THE BEAUTY IN HUMAN MOVEMENT
Physical activities which are thought of as possessing beauty or certain artistic qualities such as ballet, gymnastics or figure skating.

25.	good	1 : 2 : 3 : 4 : 5	bad
26.	worthless	1 : 2 : 3 : 4 : 5	worthwhile
27.	pleasant	1 : 2 : 3 : 4 : 5	unpleasant
28.	sour	1 : 2 : 3 : 4 : 5	sweet
29.	nice	1 : 2 : 3 : 4 : 5	awful
30.	sad	1 : 2 : 3 : 4 : 5	happy
31.	clean	1 : 2 : 3 : 4 : 5	dirty
32.	relaxed	1 : 2 : 3 : 4 : 5	tense

PHYSICAL ACTIVITY FOR THE RELEASE OF TENSION
The participation (or watching others participate) in physical activities to get away from the problems of modern living; to provide a release from "pent up emotions".

33.	good	1	2	3	4	5	bad
34.	worthless	1	2	3	4	5	worthwhile
35.	pleasant	1	2	3	4	5	unpleasant
36.	sour	1	2	3	4	5	sweet
37.	nice	1	2	3	4	5	awful
38.	sad	1	2	3	4	5	happy
39.	clean	1	2	3	4	5	dirty
40.	relaxed	1	2	3	4	5	tense

PHYSICAL ACTIVITY AS PROLONGED AND STRENUOUS TRAINING
Physical activities which require long periods of strenuous and often painful training; which involve stiff competition and demands that the individual give up a number of pleasures for a period of time.

41.	good	1	2	3	4	5	bad
42.	worthless	1	2	3	4	5	worthwhile
43.	pleasant	1	2	3	4	5	unpleasant
44.	sour	1	2	3	4	5	sweet
45.	nice	1	2	3	4	5	awful
46.	sad	1	2	3	4	5	happy
47.	clean	1	2	3	4	5	dirty
48.	relaxed	1	2	3	4	5	tense

APPENDIX B

THE TEST OF ATTENTIONAL AND INTERPERSONAL STYLE (TAIS) SCALE

Interpersonal Variables

CON — (Control scale): A high score indicates the individual is in control of most situations, interpersonal and otherwise. It also means s/he attempts to gain control of situations, i.e., take charge.

SES — (Self esteem): The higher the score, the more highly the individual thinks of him or herself (or presents him or herself as confident). The score which is graphed is SES minus DEPression.

DEP — (Depression): High scores indicate that the person gets down on him or herself, feels guilty or ashamed and a burden to others. Often the condition is temporary. High is 8 or above.

P/O — (Physical Orientation): A high score indicates the individual participates in and enjoys competitive athletics. This scale is generally loaded against women who were discouraged from being athletically active in their youth.

OBS — (Obsessive): A high score indicates the person has a tendency to ruminate and worry about one particular thing without any real resolution or movement. It is often associated with characteristic anxiety causing difficulty with deadlines. Low scorers make decisions quickly.

EXTR — (Extroversion): A high score indicates the individual is outgoing, needs to be with other people, likes to be the center of attention, the proverbial life of the party. The complete extrovert is also high on PAE.

INTR — (Introversion): A high score indicates the person likes to be alone, enjoys quiet thoughtful times, and avoids being the center of attention. It does not indicate a dislike of other people necessarily.

On the TAIS a person can score high on both EXTRoversion and INTRoversion.

IEX — (Intellectual Expression): A high score indicates the person expresses his or her thoughts and ideas to other people. High scorers like to talk.

NAE (Negative Affect Expression): A high score indicates the person expresses his or her anger and negative feelings to others. High scorers tend to be critical of others and often themselves.

PAE (Positive Affect Expression): A high score indicates the person expresses his or her feelings of affection to others in both physical (e.g., hugs) and verbal (e.g., compliments) ways. Such people like others and need to be liked.

Test of Attentional and Interpersonal Style

1. When people talk to me I find myself distracted by the sights and sounds around me.
2. When people talk to me I find myself distracted by my own thoughts and ideas.
3. All I need is a little information and I can come up with a large number of ideas.
4. My thoughts are limited to the objects and people in my immediate surroundings.
5. I need to have all the information before I say or do anything.
6. The work I do is focused and narrow, proceeding in a logical fashion.
7. I run back and forth from task to task.
8. I seem to work in "fits and starts" or "bits and pieces".
9. The work I do involves a wide variety of seemingly unrelated material and ideas.
10. My thoughts and associations come so rapidly I can't keep up with them.
11. The world seems to be a booming buzzing brilliant flash of color and confusion.
12. When I make a mistake it is because I did not wait to get all of the information.
13. When I make a mistake it is because I waited too long and got too much information.
14. When I read it is easy to block out everything but the book.
15. I focus on one small part of what a person says and miss the total message.
16. In school I failed to wait for the teachers' instructions.
17. I have difficulty clearing my mind of a single thought or idea.
18. I think about one thing at a time.
19. I get caught up in my thoughts and become oblivious to what is going on around me.
20. I theorize and philosophize.
21. I enjoy quiet, thoughtful times.

22. I would rather be feeling and experiencing the world than my own thoughts.

23. My environment is exciting and keeps me involved.

24. My interests are broader than most people's.

25. My interests are narrower than most people's.

26. It is easy for me to direct my attention and focus narrowly on something.

27. It is easy for me to focus on a number of things at the same time.

28. It is easy for me to keep thoughts from interfering with something I am watching or listening to.

29. It is easy for me to keep sights and sounds from interfering with my thoughts.

30. Happenings or objects grab my attention.

31. It is easy for me to keep my mind on a single thought or idea.

32. I am good at picking a voice or instrument out of a piece of music that I am listening to.

33. With so much going on around me, it's difficult for me to think about anything for any length of time.

34. I am good at quickly analyzing complex situations around me, such as how a play is developing in football or which of four or five kids started a fight.

35. At stores I am faced with so many choices I can't make up my mind.

36. I spend a great deal of my time thinking about all kinds of ideas I have.

37. I figure out how to respond to others by imaging myself in their situation.

38. In school I would become distracted and didn't stick to the subject.

39. When I get anxious or nervous my attention becomes narrow and I fail to see important things that are going around me.

40. Even though I am not hungry, if something I like is placed in front of me, I'll eat it.

41. I am more of a doing kind of person than a thinking one.

42. In a room filled with children or out on a playing field, I know what everyone is doing.

43. It is easy for me to keep my mind on a single sight or sound.

44. I am good at rapidly scanning crowds and picking out a particular person or face.

45. I have difficulty shifting back and forth from one conversation to another.

46. I get confused trying to watch activities such as a football game or circus where a number of things are happening at the same time.

47. I have so many things on my mind that I become confused and forgetful.

48. On essay tests my answers are (were) too narrow and don't cover the topic.

49. It is easy for me to forget about problems by watching a good movie or by listening to music.

50. I can't resist temptation when it is right in front of me.

51. In games I make mistakes because I am watching what one person does and forget about the others.

52. I can plan several moves ahead in complicated games like bridge and chess.

53. In school I was not a "thinker".

54. In a roomful of people I can keep track of several conversations at the same time.

55. I have difficulty telling how others feel by watching them and listening to them talk.

56. People have to repeat things to me because I become distracted by irrelevant sights or sounds around me.

57. I make mistakes because I try to do too many things at once.

58. I am good at analyzing situations and predicting in advance what others will do.

59. On essay tests my answers are (were) too broad, bringing in irrelevant information.

60. People fool me because I don't bother to analyze the things that they say; I take them at face value.

61. I would much rather be doing something than just sitting around thinking.

62. I make mistakes because my thoughts get stuck on one idea or feeling.

63. I am constantly analyzing people and situations.

64. I get confused at busy intersections.

65. I am good at glancing at a large area and quickly picking out several objects, such as in those hidden figure drawings in children's magazines.

66. I get anxious and block out everything on tests.

67. Even when I am involved in a game or sport, my mind is going a mile a minute.

68. I can figure out how to respond to others just by looking at them.

69. I have a tendency to get involved in a conversation and forget important things like a pot on the stove, or like leaving the motor running on the car.

70. It is easy for me to bring together ideas from a number of different areas.

71. Sometimes lights and sounds come at me so rapidly they make me lightheaded or dizzy.

72. People have to repeat things because I get distracted by my own irrelevant thoughts.

73. People pull the wool over my eyes because I fail to see when they are obviously kidding by looking at the way they are smiling or listening to their joking tone.

74. I can spend a lot of time just looking at things with my mind almost a complete blank except for reflecting the things that I see.

75. I sometimes confuse others because I tell them too many things at once.

76. I engage in physical activity.

77. People describe me as serious.

78. I sit alone listening to music.

79. People take advantage of me.

80. I keep my thoughts to myself.

81. I keep my feelings to myself.

82. I am good at getting my own way.

83. I like to argue.

84. Others see me as a loner.

85. I talked a lot in class when I was in school.

86. I enjoy intellectual competition with others.

87. I enjoy individual athletic competition.

88. I compete(d) athletically.

89. I physically express my feelings of affection.

90. I compete with myself intellectually.

91. I compete with myself physically.

92. I enjoy activities with danger or an element of the unknown in them.

93. I express my opinions on issues.

94. I can keep a secret.

95. When I believe deeply in something I find I am a poor loser and unable to compromise.

96. I am socially self-confident when interacting with those who are like myself.

97. I am socially self-confident when interacting with authority figures.

98. I am socially self-confident when talking in front of large groups.

99. I am socially self-confident when talking with the opposite sex.

100. I express my anger.

101. I dated in high school.

102. People think I am a clown.

103. I get mad and express it.

104. I get down on myself.

105. I was one of the smartest kids in school.

106. I am a good person.

107. My feelings are intense.

108. I need to help others.

109. I need to be liked.

110. I enjoy planning for the future.

111. I wish I lived in a different time.

112. I geel guilty.

113. I feel ashamed.

114. I am seen as a cold person by others.

115. I am a good mixer.

116. I am socially outgoing.

117. I have difficulty waiting for good things to happen.

118. I peeked at Christmas time.

119. When I am angry I lose control and say things that sometimes hurt others.

120. I have been angry enough that I physically hurt someone.

121. At dances or parties I find a corner and avoid the limelight.

122. I acted in dramatic productions in high school and/or college.

123. In school the kids I hung around with were athletes.

124. In school the kids I hung around with were intellectuals.

125. In school the kids I hung around with were popular.

126. In school the kids I hung around with were outcasts or loners.

127. People trust me with their secrets.

128. I am in control in interpersonal situations.

129. I fought in school.

130. I have used illegal drugs.

131. In groups I am one of the leaders.

132. People admire me for my intellect.

133. People admire me for my physical ability.

134. People admire me for my concern for others.

135. People admire me for my social status.

136. I ran for class offices in school.

137. I feel as though I am a burden to others.

138. People see me as an angry person.

139. I see myself as an angry person.

140. I have a lot of energy for my age.

141. I am always on the go.

142. I cut school in high school.

143. I have engaged in activities that could get me in trouble with the police.

144. I guess you could call me a poor loser.

APPENDIX C

GENERAL INTEREST QUISTIONNAIRE

Instructions

1. This questionnaire is designed to find out about general information regarding you and your opinion and interest in sport and physical activities.
2. Do not write on the test booklet.
3. Please answer questions A to M by filling in the circle or writing the appropriate answer in the assigned space on the answer sheet.
4. Read items 1 to 40 carefully and then answer according to the frequency with which it describes you, your situation or your opinion.

A. Are you:

Single ○ Engaged ○ Married ○ Widow ○ Divorced ○ Separated ○

B. Is your father alive? Yes ○ No ○

C. Is your mother alive? Yes ○ No ○

D. What is your father's education?

Illiterate ○ Elementary ○ High School ○ University ○ Graduate Study ○

E. What is your mother's education?

Illiterate ○ Elementary ○ High School ○ University ○ Graduate Study ○

F. What is your father's or your guardian's profession?

Farmer ○ Laborer ○ Employee ○ Merchant ○ Physician ○

Engineer ○ Lawyer ○ Teacher ○ University Professor ○

Other _____

G. How much is the family monthly income? _____

H. I live in a vast and appropriate house. Yes ○ No ○

I. How many brothers do you have? _____

J. How many sisters do you have? _____

K. What is your order among your brothers and sisters? _____

L. Do you have married brothers or sisters? Yes ○ No ○

How many if you answered 'Yes'? _____

M. What is/are your favourite sport? Number the circle(s) in front of the following sports according to your preference:

Volleyball ○ Basketball ○ Team Handball ○ Table Tennis ○

Badminton ○ Soccer ○ Track & Field ○ Gymnastics ○

I don't like sport at all ○

1. My family encourages me to practice physical activity.

a great deal some not at all

2. Physical activity is an integral part of my life program.

a great deal some not at all

3. Practice of physical activity and sport by a woman affects her social reputation negatively.

a great deal some not at all

4. I practice physical activity and sport at the university.

a great deal some not at all

5. I practice physical activity at home.

a great deal some not at all

6. I practice physical activity at a club which I am a member in.

a great deal some not at all

7. Dressing, showering and getting generally "mussed up" deter me from actual participation in physical activity.

a great deal some not at all

8. Practice of physical activity and sport by women is contrary to religion.

a great deal some not at all

9. Surrounded circumstances at university do not encourage female students to practice physical activity.

a great deal some not at all

10. Housekeeping substitutes the practice of physical activity.

a great deal some not at all

11. Little opportunities for a female child to participate with other children during childhood affect her attitudes and participation in physical activity.

a great deal some not at all

12. Practice of physical activity by a woman improves her social status.

a great deal some not at all

13. Lack of time deters me from participation in physical activity.

a great deal some not at all

14. I have participated the most in physical activity during:

elementary school high school university

15. My average weekly practice of physical activity is:

five hours or more 1-4 hours none

16. Sports facilities and equipment at my university are not appropriate and do not encourage female students to practice physical activity and sport.

a great deal some not at all

17. Practice of physical activity and sport by a woman is contrary to traditions.

a great deal some not at all

18. I prefer the idea of physical education classes for all university female students.

a great deal some not at all

19. Practice of physical activity by a woman makes her look masculine.

a great deal some not at all

20. When I will be a mother (or if I am a mother now) I will encourage my children to participate in physical activity.

a great deal some not at all

21. Practice of physical activity by a woman affects her behavior negatively.

a great deal some not at all

22. Practice of physical activity by a woman improves her health.

a great deal some not at all

23. I advise every woman to practice physical activity.

a great deal some not at all

24. My participation in physical activity makes me disturbed.

a great deal some not at all

25. Male students' attendance during practicing physical activity deters me from participation in it.

a great deal some not at all

26. Women's practice of physical activity by wearing shorts is better than wearing pants or tracksuits.

a great deal some not at all

27. I watch T.V. sports programs.

a great deal some not at all

28. I like to watch sports competitions at the university.

a great deal some not at all

29. I watch sports competitions at the university.

a great deal some not at all

30. My father practices (practiced) physical activity regularly.

a great deal some not at all

31. My mother practices (practiced) physical activity regularly.

a great deal some not at all

32. My brothers practice (practiced) physical activity regularly.

a great deal some not at all

33. My sisters practice (practiced) physical activity regularly.

a great deal some not at all

34. Practicing physical activity helps female students to study vigorously.

a great deal some not at all

35. My participation in physical education classes during the elementary stage encouraged me to practice physical activity in the high school and university.

a great deal some not at all

36. My participation in physical education classes during the high school stage encouraged me to practice physical activity in the university.

a great deal some not at all

37. Watching male and female students practice physical activity in the university improved my attitudes toward physical activity and made me participate in it.

a great deal some not at all

38. My father discouraged me from participating in physical education class during elementary and high school.

a great deal some not at all

39. I would like to marry (I married) a man who supports and/or practices physical activity.

yes no I don't know

40. The practice of physical activity by a woman is a waste of time.

yes no I don't know